



Ms. Bonnie Hriczko
Removal Action Branch
US Environmental Protection Agency, Region II
2890 Woodbridge Avenue, MS-211
Edison, NJ 08837

Re: Request For Information
Superior Barrel and Drum Site, Elk, Gloucester County, NJ

Dear Ms. Hriczko:

Enclosed is our response to subject Request For Information. A copy of the response is being sent to Mr. William Tucker, Esq. at the Office of Regional Counsel.

Sincerely,

Daniel A. Rowan
CFO

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION
Superior Barrel and Drum Site, Elk, Gloucester County, New Jersey

State of New Jersey:

County of Atlantic:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information) and all documents submitted herewith, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that I am under a continuing obligation to supplement my response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information or my response thereto should become known or available to me.

DANIEL A. ROWAN
NAME (print or type)

CFO
TITLE (print or type)

[Signature]
SIGNATURE

Sworn to before me this 27
day of Feb , 2014

Carmen I. Tavaraz
Notary Public

CARMEN I. TAVAREZ
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires March 10, 2014



RESPONSES TO QUESTIONS CONCERNING SUPERIOR BARREL AND DRUM (SBD)

1a: Ocean Yachts Inc.

1b: New Jersey Corporation

1c: John E. Leek, III
736 West Moss Mill Road
Egg Harbor City, NJ 08215

Daniel A. Rowan
29 Greens Way
Blackwood, NJ 08012

1d: None

1e: None

1f: From 1987 - 1991, Facility 2 was operated by Ocean Yachts II, Inc. ("OYII"), a different legal entity from Ocean Yachts, Inc. ("Company"). This is further explained in our answer to question 4b.

2a: Company manufactures & repairs fiberglass recreational vessels. Boats are sold through dealers nationally & internationally. Company was formed in 1977.

2b: Since organized, Company has manufactured and repaired fiberglass recreational vessels. Raw materials purchased in drums consist of: gel-coat, vinylester resin, polyester resin, methacrylate adhesives, and acetone. Material Safety Data Sheets for these chemicals are enclosed. Also enclosed are the chemical composition sections of the Material Safety Data Sheets for all other chemicals used. Company empties the drums in accordance with the provisions of EPA Regulations 40CFR 261.7(2)(b) ("empty") and stores them in a designated area until enough empty drums are accumulated for SBD to pick up. SBD required Company to empty all drums prior to transfer to SBD. If there is a drum that still has residual contents such as gel-coat, resin, or methacrylate that needs to be discarded we catalyze the material until hardened and then discard the material. See our response to question 9 for a further explanation of how Company empties the drums.

Acetone used for wiping/cleaning fiberglass surfaces is used until the drum is empty. Acetone used for cleaning resin or gel-coat application equipment is stored in marked containers. We

hire a third party to come in and recycle this acetone. Any residual waste is stored in labeled containers and then picked up by a hazardous waste removal company.

Other materials necessary to the construction of boats include various paints, epoxies, varnishes, and adhesives. We use these materials in small quantities and they are delivered in small containers, not drums. If there is residual material we catalyze and harden it and then dispose of it. If there are materials that can't be disposed of that way we store them in a designated area until we have a hazardous waste removal company come pick them up. SBD did not remove waste of any of these materials for Company.

Copies of Hazardous Waste Manifests are provided for sources who disposed of residual waste material. None of those materials were transported to the Site. Manifests are available from 2005 to present. In addition, 2 manifests from 1987, one from 1988, and one from 2001 were located and are provided.

All hazardous substances were and are handled in accordance with the Ocean Yachts HCS Written Program, the various Emergency, Spill, and Fire Response Plans, and the Hazardous Waste Training Program. A copy of the latest version of the HCS Written Program and a Facility Layout are provided herein.

3a: Company conducted business with SBD for disposal of empty 55 gallon drums in accordance with the procedures described in our answer to 2b above.

3b: Facility 1	Facility 2
2713 Green Bank Road	901 Duerer Street
Egg Harbor City, NJ 08215	Egg Harbor City, NJ 08215

SBD disposed of empty 55 gallon drums for Company as a trade vendor.

3c: There have never been any contracts or agreements between Company and SBD.

4a: Facility 1 - boatbuilding & repairing, 1977 - present
Facility 2 - boatbuilding, approximately 1997 - 2009

4b: Ocean Yachts Inc.	Ocean Yachts Inc.
Facility 1	Facility 2
2713 Green Bank Road	901 Duerer Street
Egg Harbor City, NJ 08215	Egg Harbor City, NJ 08215
RCRA #NJD087092391	RCRA #NJD184807311

Facility 2 was constructed in 1987 by OYII, incorporated May 4, 1987 in NJ, as a different legal entity than Company. OYII operated in the boatbuilding business from 1987 until June 1991 when it closed and was subsequently formally dissolved. Company operated in Facility 2 from approximately 1997 until 2009. During the period that Company operated in Facility 2 it used the same RCRA Number that OYII had used, which number is listed above as the RCRA Number

for Facility II.

5a - 5e: See enclosed spreadsheet "Transactions Between Ocean Yachts and SBD" which contains all transactions for which records of identifiable empty drum transfers to SBD are available. Company ceased doing business with SBD in 2011. For 5e, see also our answers to questions 2b, 8 and 9.

6: Documents are enclosed for transactions back to 2004. Those documents include empty drum transfer vouchers/payment vouchers from SBD and certain invoices from SBD issued when SBD did not receive a check from Ocean Yachts Inc. at the time of transfer. These are all of the transfer documents available as our practice is to dispose of such records after approximately 7 years.

7: Employees Daniel Rowan, John Leek III, John Leek IV and Robert Phillips have knowledge of transactions with SBD.

8a: The only substances that would have been in the drums that SBD picked up from Company were resin, gel-coat, acetone, and methacrylate (Plexus). The drums that SBD picked up from Company were always empty. SBD would not accept any drums that were not empty.

8b. See enclosed MSDS sheets for polyester resin, vinylester resin, gel-coat, acetone, and methacrylate (Plexus).

9. Company uses the same emptying process for containers of all sizes and all chemical contents because it is economically prudent to use all of the material and to minimize the amount of materials that must be handled as hazardous waste.

Our primary method of using resin and gel-coat is to pump it out of the drums using our resin and gel-coat application equipment. Any quantity that the apparatus can't reach with the pump is poured out by hand into a small container and then used by hand. In certain cases, resin or gel-coat may be poured from the drum using a special spigot that threads into the drum cap. The result is the same, the resin or gel-coat is poured out until the drum is empty. In the event that there is any residual material we catalyze and harden the material in a small container and then discard.

Acetone is pumped from drums using a hand pump to remove as much acetone as possible. Then the drum is tipped to pour residual acetone into a small storage container until the drum is empty.

Drums of methacrylate (Plexus) are lined with plastic. Any residual material not able to be pumped out by the methacrylate adhesive apparatus is contained by the plastic drum liners. These liners are then removed and the residual material is catalyzed by hand until hardened and then discarded.

10: None.

11: Employees John Leek III, John Leek IV and Daniel Rowan were consulted on, and reviewed the answers to all questions.

The following person was consulted in general concerning the Request For Information:

Daniel H. Thompson
Berger Singerman
125 South Gadsen ST, Suite 300
Tallahassee, FL 32301

12. The following former employee was responsible for administering the hazardous waste program and the required reporting.

Robert Fink, Human Resources Manager

[REDACTED]
[REDACTED]
[REDACTED]

Mr. Fink was employed by Company from 1984 - 2009.

The following person and company provided services coordinating the removal of waste:

Bob Jones
QDS
105 Antes Lane
Coatsville, PA 19320
610-384-8690

13. Company is not aware of of any sources besides SBD that transported containers to the Site.

SECTION I - Manufacturer/Distributor's Information

Manufacturer: Research Solvents and Chemicals, Inc.
Address: 402 Industrial Park Dr. Pelham, AL 35124
Phone: (205) 663-6350 or (615) 793-6737
Emergency Phone: CHEMTREC: (800) 424-9300
Date Prepared: 09/09/96

RESEARCH: (615) 793-6737
Date Revised: 11/22/10

****HMIS Rating Health -1 Flammability -3 Reactivity -0**

SECTION II - Hazardous Components of Mixture

The precise composition of this product is proprietary information. In the event of a medical emergency, a complete disclosure will be provided to medical personnel.

Components	CAS#	OSHA PEL	ACGIH TLV
2-Propanone	67-64-1	1000 ppm	750 ppm

SECTION III - Physical Characteristics

Boiling Point: 56°C (133°F)
Vapor Pressure: 184 mmHg @ 20°C
Vapor Density: 2 (air =1)
Specific Gravity: 0.79
Evaporation Rate: 11.6 (butyl acetate =1)
Solubility in Water: Complete
Appearance and Odor: Clear, colourless liquid; strong ketone odor
%VOC's (by weight): 0%

SECTION IV - Fire and Explosion Data

Flash Point: -0.4°F (-18°C), TCC
Lower Flammable Level: 2.5%
Upper Flammable Level: 12.8%
Extinguishing Media: Water fog, foam, CO2, dry chemical.

Special Fire Fighting Procedures: Use self-contained breathing apparatus and full bunker gear in fire areas. Evacuate all unprotected personnel from area. Keep containers cool with water fog to minimize swelling taking care not to spread flames with water used for cooling.

Unusual Fire Fighting Hazards: Product is extremely flammable and may be ignited by heat, sparks, flames or other sources of ignition (i.e. static electricity, pilot lights, or mechanical/electrical equipment). Vapors may travel considerable distances to a source of ignition where they can ignite, flashback, or explode. May create vapor/air explosion hazard indoors, outdoors, or in sewers. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can explode in the heat of a fire. May create a floating fire hazard.

SECTION V - Stability

Stability: Stable
Conditions to Avoid: Extreme heat and ignition sources
Incompatibilities (materials to avoid): Strong oxidizers, acids and halogenated compounds
Hazardous Decomposition or Byproducts: CO, CO2, and various hydrocarbons under combustion conditions.
Hazardous Polymerization: Will not occur
Polymerization Conditions to Avoid: None

MATERIAL SAFETY DATA SHEET

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Interplastic Corporation
1225 Willow Lake Blvd
Vadnais Heights, MN 55110-5145

24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Revision Date: 10/30/08
Date Printed: 12/11/00
MSDS File id: MSDSLT02
Customer No:
Whse No: 0003

This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard)

I. IDENTIFICATION

Product Name: Acetone
Common Name: 2-Propanone; Dimethyl ketone
Formula: CH₃COCH₃

II. INGREDIENTS AND RECOMMENDED OCCUPATIONAL EXPOSURE LIMITS

Component: Acetone
% Weight: Approx. 100
Cas. No.: 67-64-1
Exposure Limits: OSHA-PEL: TWA-750 ppm; STEL-1000 ppm
ACGIH-TLV: TWA-750 ppm; STEL-1000 ppm
Oral LD50: 5800 mg/kg (rat)
Dermal LD50: 20 gm/kg (rabbit)

HAZARD DATA - DANGER!

Extremely Flammable Liquid and Vapor. May cause eye, skin, and upper respiratory tract irritation.

INGREDIENT HAZARD INFORMATION

Acetone is identified as a SARA Section 313 chemical.

III. PHYSICAL DATA

Boiling Point (Deg. F): 133
Melting Point (Deg. F): -138
Vapor Pressure (mm Hg.) @ 20 Deg. C: 180
Vapor Density (AIR=1): 2.00
Appearance and Odor: Colorless liquid; pungent odor
Specific Gravity (H₂O=1) @ 25 Deg./25: 0.790
Evaporation Rate (n-BuAc=1.0): 5.6 Fast
pH: Not Applicable
Solubility in Water: Complete

IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)

15 Deg. F (Open Cup)

Flammable Limits:

Lel: 2.6%

Uel: 12.8%

EXTINGUISHING MEDIA

Carbon dioxide or dry chemicals; large fires - "alcohol type" foam. Water may be ineffective, but should be used to keep fire and exposed containers cool.

SPECIAL FIRE FIGHTING PROCEDURES

Water spray or fog, jet stream may spread fire.

Firefighters should wear self-contained breathing equipment and protective clothing.

UNUSUAL FIRE AND EXPLOSION PROCEDURES

Vapors are heavier than air and may travel to distant ignition sources.

V. REACTIVITY DATA

Stable: Yes

Unstable: No

Conditions to Avoid: Strong oxidizing agents

INCOMPATIBILITY (Materials to Avoid)

Oxidizing agents, ignites when reacted with potassium tert-butoxide.

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon monoxide, carbon dioxide, organic acids.

Polymerization May Occur or Will Not Occur:

CONDITIONS TO AVOID: None

VI. SPILL OR LEAK PROCEDURES

TRANSPORTATION EMERGENCIES

Call CHEMTREC 800-424-9300

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Dike with sand or earth. Prevent from entering sewers or waterways, remove heat, and ignition sources. Absorb with sand or earth and place in covered and labeled drum.

Acetone is on the CERCLA hazardous substance list of 1980, as amended, and reportable spills must be reported to the National Response Center.

In case of release to the environment, report spills to 800-424-8802, The National Response Center.

WASTE DISPOSAL METHOD:

Dispose of in accordance with local, state and federal regulations.

VII. HEALTH HAZARD DATA

MAJOR EXPOSURE HAZARDS

Inhalation: Yes

Skin Contact: Yes

Eye Contact: Yes

Ingestion: No

EFFECTS OF OVEREXPOSURE:

INHALATION: High vapor concentrations may irritate the eyes and mucous membranes of the nose and throat. Severe overexposure (i.e. >12,000 ppm) can cause Central Nervous System depression including nausea, vomiting, headache, incoordination and dizziness.

SKIN CONTACT: Repeated or prolonged contact of the liquid with the skin can cause redness and a dry, scaly and fissured dermatitis.

EYE CONTACT: Eye contact resulting from splashes or high vapor concentration exposures is irritating. When acetone was absorbed systemically, it caused cataracts in some laboratory animals.

INGESTION: Effects are intoxicating. These acute symptoms might include early emotional instability, impaired motor coordination, nausea, vomiting, drowsiness, stupor and finally coma. Ten to 20 ml has been taken orally without ill effect.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with chronic respiratory disorders (i.e., asthma, chronic bronchitis, emphysema, etc.) may be adversely affected by any fume or airborne particulate matter exposure. Persons with pre-existing skin disorders may be more susceptible to dermatitis.

CARCINOGENICITY: Not Applicable

NTP:

IARC:

OSHA:

OTHER COMMENTS: The health hazards associated with acetone are considered to be relatively low. No reports were seen in the literature that implicated acetone as a carcinogen, mutagen or reproductive toxin.

VIII. EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure. If breathing has stopped or is difficult, administer artificial respiration (mouth-to-mouth) or oxygen as indicated. Call a physician.

SKIN CONTACT: Remove contaminated clothing. Wash skin thoroughly with soap and plenty of water. Call a physician.

EYE CONTACT: Flush with large amounts of water for at least 15 minutes. Call a physician.

INGESTION: For large amounts, give 1-2 glasses of milk or water. Induce vomiting by touching finger to the back of throat. Never give anything by mouth to an unconscious person.

IX. SPECIAL PROTECTION INFORMATION

RESPIRATORY: NIOSH/MSHA approved organic vapor respirator should be used to avoid excessive inhalation. Appropriate respirator selection depends on magnitude and type of exposure.

SKIN: Natural rubber or butyl rubber gloves should be used to prevent skin contact. Where employees may be splashed, polyethylene protective aprons or clothing should be provided. A face shield should be used to prevent facial contact.

EYE: Employees should be required to wear chemical safety glasses to prevent eye contact.

VENTILATION: Local exhaust ventilation should be used to control the build-up of air contaminants. General dilution ventilation may help to reduce air contaminant concentrations.

OTHER PROTECTIVE EQUIPMENT: An eyewash station and deluge safety shower should be available in the work area. Moisturizing creams can be used to prevent excessive drying of the skin.

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Extremely flammable, keep away from heat, sparks, and fire. Keep container closed. Store away from oxidizers. Bond and ground containers for transfers of this product to prevent static sparks.

X. REGULATORY STATUS

TSCA STATUS: This product (or its ingredients if it is a mixture) appears on the Toxic Substances Control Act Inventory (TSCA).

SARA HAZARD CATEGORIES (Section 311 and Section 312):

Reactivity: No

Immediate Health: Yes

Pressure: No

Delayed Health: Yes

Fire: No

SARA Section 313: See Section II, Ingredient Hazard Statement.

DOT SHIPPING NAME: Acetone

DOT HAZARD CLASS: Flammable Liquid

IDENTIFICATION NUMBER: UN 1090

HMIS RATINGS (Hazardous Materials Identification System, Scale 0-4):

Health: 1

Flammability: 3

Reactivity: 0

NFPA RATINGS (National Fire Protection Association, Scale 0-4):

Health: 1

Flammability: 3

Reactivity: 0

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ITW Plexus

Part No.: 0505

Material Safety Data Sheet

Page 1

MA 556 ADHESIVE

This product appears in the following stock number(s):

IT190 IT191

Last revised: 03/20/00

Printed: 4/7/2000

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: MA 556 ADHESIVE

General use: Adhesive. Refer to the regulatory notes in Section 15 for additional VOC information.

Chemical family: Acrylate

MANUFACTURER

ITW Plexus
30 Endicott St.
Danvers, Massachusetts 01923

EMERGENCY INFORMATION

Emergency telephone number
(CHEMTREC): (800) 424-9300
Other Calls: (878) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS

Exposure limits

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Isopropanol	IPA	67680	< 1	400 ppm	400 ppm	400 ppm (Canada)
Methacrylic acid	MAA	79414	< 5	20 ppm	20 ppm	4 ppm (Manufacturer)
Methyl Methacrylate Monomer	MMA	80626	> 80	100 ppm	100 ppm	100 ppm (Canada)

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Off-white paste with odor.

WARNING! Flammable. Overexposure to liquid, mist or vapor may have the following effects: **EYE AND SKIN EXPOSURE:** Irritant and potential skin sensitizer. May cause redness, itching, burning, rash. **RESPIRATORY EXPOSURE:** Irritant. May cause headache, nausea, dizziness, fatigue, drowsiness. Avoid breathing vapor. Use with adequate ventilation or use proper respiratory equipment. Wash thoroughly after handling. Do not take internally. Keep away from heat, sparks, open flames.

MSDS0019

OYSBD013

2-b

ITW Plexus	Material Safety Data Sheet
Part No.: 0984	Page 1

MA 555 ADHESIVE

This product appears in the following stock number(s):
IT160 IT162

Last revised: 07/17/87
Printed: 12/29/1986

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: **MA 555 ADHESIVE**
 General use: Adhesive. Refer to the regulatory notes in Section 15 for additional VOC information.
 Chemical family: Acrylate

MANUFACTURER

ITW Plexus
30 Endicott St.
Danvers, Massachusetts 01923

EMERGENCY INFORMATION

Emergency telephone number
 (CHEMTREC): (800) 424-6300
 Other Calls: (978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS

Exposure limits

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Methacrylic acid	MAA	79414	1-10	20 ppm	20 ppm	4 ppm (Manufacturer)
Methyl Methacrylate Monomer	MMA	80628	40-70	100 ppm	100 ppm	100 ppm (Canada)

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Off-white paste with varied fragrant odor.

WARNING! Flammable. Overexposure to liquid, mist or vapor may have the following effects: **EYE AND SKIN EXPOSURE:** Irritant and potential skin sensitizer. May cause redness, itching, burning, rash. **RESPIRATORY EXPOSURE:** Irritant. May cause headache, nausea, dizziness, fatigue, drowsiness. Avoid breathing vapor. Use with adequate ventilation or use proper respiratory equipment. Wash thoroughly after handling. Do not take internally. Keep away from heat, sparks, open flames.

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ITW Plexus

Part No.: 0982

Material Safety Data Sheet

Page 1

MA 425 ADHESIVE

This product appears in the following stock number(s):

IT150 IT151 IT152 IT156

Last revised: 01/13/99

Printed: 1/19/1999

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: **MA 425 ADHESIVE**

General use: **Adhesive**

Chemical family: **Acrylate**

MANUFACTURER

ITW Plexus
30 Endicott St.
Danvers, Massachusetts 01923

EMERGENCY INFORMATION

Emergency telephone number
(CHEMTREC): (800) 424-9300
Other Calls: (978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS

Exposure Limits

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Isopropanol	IPA	67630	< 1	400 ppm	400 ppm	400 ppm (Canada)
Methacrylic acid	MAA	79414	1-10	20 ppm	20 ppm	4 ppm (Manufacturer)
Methyl Methacrylate Monomer	MMA	80626	> 60	100 ppm	100 ppm	100 ppm (Canada)

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Off-white paste with varied fragrant odor.

WARNING! Flammable. Overexposure to liquid, mist or vapor may have the following effects: **EYE AND SKIN EXPOSURE:** Irritant and potential skin sensitizer. May cause redness, itching, burning, rash. **RESPIRATORY EXPOSURE:** Irritant. May cause headache, nausea, dizziness, fatigue, drowsiness. Avoid breathing vapor. Use with adequate ventilation or use proper respiratory equipment. Wash thoroughly after handling. Do not take internally. Keep away from heat, sparks, open flames.

MA000079

OYSBD015

2-6

PLEXUS

STRUCTURAL ADHESIVES

MSDS Name: **MA 550**
Manufacturer Name: **ITW Plexus**
Stock No.: **35000**
Kit MSDS Revision Date: **12/15/2009**

Components :	
	MA 550 UK WHITE ACTIVATOR (p. 1-5)
	MA 550 ADHESIVE (p. 6-11)
ITW Plexus Product Code : 35000	

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GLOSSARY

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SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: **MA 550 UK WHITE ACTIVATOR**
Manufacturer Name: **ITW Plexus**
Address: **30 Endicott Street
Danvers, MA 01923**
General Phone Number: **(978) 777-1100**
Emergency Phone Number: **(800) 424-9300**
CHEMTREC: **For emergencies in the US, call CHEMTREC: 800-424-9300**
Canutec: **In Canada, call CANUTEC: (613) 996-6666 (call collect)**
MSDS Revision Date: **12/15/2009**

HMIS

Health Hazard	1*
Fire Hazard	1
REACTIVITY	3
Personal Protection	5

* Chronic Health Effects

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Non-hazardous Ingredients.	N/A	5 - 10 by weight
Benzoyl peroxide	94-36-0	5 - 10 by weight
Titanium dioxide	13463-67-7	30 - 60 by weight
Diisodecyl phthalate	26761-40-0	10 - 30 by weight
Texanol Benzyl Phthalate	16883-83-3	10 - 30 by weight
Diisobutyl Phthalate	84-69-5	10 - 30 by weight
Trade secret.	N/A	1 - 5 by weight
Inert material	N/A	1 - 5 by weight
Fillers	N/A	1 - 5 by weight

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: **DANGER! Potential Sensitizer, Irritant.**
Route of Exposure: **Eyes, Skin, Inhalation, Ingestion.**
Potential Health Effects:

Eye:	Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury..
Skin:	Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.
Inhalation:	Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals.
Ingestion:	Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.
Chronic Health Effects:	Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.
Signs/Symptoms:	Overexposure can cause headaches, dizziness, nausea, and vomiting.
Target Organs:	Eyes. Skin. Respiratory system. Digestive system.
Aggravation of Pre-Existing Conditions:	Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

SECTION 4 - FIRST AID MEASURES

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
Skin Contact:	Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties:	Decomposition products can be flammable. Self accelerating decomposition temperature is 129 F (estimated).
Flash Point:	Not determined.
Auto Ignition Temperature:	Not determined.
Lower Flammable/Explosive Limit:	Not determined.
Upper Flammable/Explosive Limit:	Not determined.
Fire Fighting Instructions:	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.
Extinguishing Media:	Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Unusual Fire Hazards:	Organic peroxides can decompose violently if heated strongly while confined. Sudden reaction and fire may result if product is mixed with an oxidizing agent.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill Cleanup Measures:	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue. Avoid personal contact and breathing vapors or mists. Ventilate area. Use proper personal protective equipment as listed in section 8.
Personnel Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways.
Other Precautions:	Pump or shovel to storage/salvage vessels.

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SECTION 7 - HANDLING and STORAGE

Handling: Use with adequate ventilation. Avoid breathing vapor, aerosol or mist.
Storage: Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use. Do not store in temperatures above 100 °F.
Hygiene Practices: Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls: Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Eye/Face Protection: Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

Skin Protection Description: Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.

Respiratory Protection: A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Other Protective: Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

EXPOSURE GUIDELINES**Benzoyl peroxide:**

Guideline ACGIH: 5 mg/m3
TLV-TWA: 5 mg/m3

Guideline OSHA: 5 mg/m3
PEL-TWA: 5 mg/m3

Titanium dioxide:

Guideline ACGIH: 10 mg/m3
TLV-TWA: 10 mg/m3

Notes: Only established PEL and TLV values for the ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance: Paste..

Color: White.

Odor: slight odor

Boiling Point: Not determined.

Melting Point: Not determined.

Specific Gravity: Not determined.

Solubility: slightly soluble.

Vapor Density: Not determined.

Vapor Pressure: Not determined.

Percent Volatile: <1

Evaporation Rate: <<1 (butyl acetate = 1)

pH: Neutral.

Molecular Formula: Mixture

Molecular Weight: Mixture

Flash Point: Not determined.

Auto Ignition Temperature: Not determined.

VOC Content: 0 g/L

Percent Solids by Weight: 99

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SECTION 10 - STABILITY and REACTIVITY

Chemical Stability:	Unstable.
Hazardous Polymerization:	Not reported.
Conditions to Avoid:	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Contamination, direct sunlight, friction and prolonged storage above 100°F (38°C).
Incompatible Materials:	Oxidizing agents. Strong acids and alkalis.

SECTION 11 - TOXICOLOGICAL INFORMATION**Benzoyl peroxide:**

RTECS Number:	DM8575000
Eye:	Eye - Rabbit Standard Draize Test: 500 mg/24H
Skin:	Oral - Rat LD50: 7710 mg/kg [Lungs, Thorax, or Respiration - Cyanosis Liver - Other changes Kidney/Ureter/Bladder - Other changes in urine composition] Oral - Mouse LD50: 1200 mg/kg [Details of toxic effects not reported other than lethal dose value.] Oral - Rat LD50: 6400 mg/kg [Details of toxic effects not reported other than lethal dose value.] Intraperitoneal - Mouse LD50: 147 mg/kg [Details of toxic effects not reported other than lethal dose value.] Intraperitoneal - Rat LD50: 372.8 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Ingestion:	Oral - Rat LD50: 7710 mg/kg [Lungs, Thorax, or Respiration - Cyanosis Liver - Other changes Kidney/Ureter/Bladder - Other changes in urine composition] Oral - Mouse LD50: 1200 mg/kg [Details of toxic effects not reported other than lethal dose value.] Oral - Rat LD50: 6400 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Titanium dioxide:

RTECS Number:	XR2275000
Cardinogenicity:	IARC: Group 2B: Possibly carcinogenic to humans.

Dilaodecyl phthalate:

RTECS Number:	TI1270000
Skin:	Oral - Rat LD50: 64 gm/kg [Details of toxic effects not reported other than lethal dose value.] Administration onto the skin - Rabbit LD50: >3160 mg/kg [Details of toxic effects not reported other than lethal dose value.]
Ingestion:	Oral - Rat LD50: 64 gm/kg [Details of toxic effects not reported other than lethal dose value.]

Dilaobutyl Phthalate:

RTECS Number:	TI1225000
Skin:	Oral - Rat LD50: 15 gm/kg [Details of toxic effects not reported other than lethal dose value.] Intraperitoneal - Rat LD50: 3750 uL/kg [Details of toxic effects not reported other than lethal dose value.] Unreported - Rat LD50: 20500 mg/kg [Details of toxic effects not reported other than lethal dose value.] Oral - Mouse LD50: 10 gm/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory stimulation] Intraperitoneal - Mouse LD50: 3990 mg/kg [Details of toxic effects not reported other than lethal dose value.] Unreported - Mouse LD50: 10500 mg/kg [Details of toxic effects not reported other than lethal dose value.] Administration onto the skin - Guinea pig LD50: 10 gm/kg [Details of toxic effects not reported other than lethal dose value.]
Ingestion:	Oral - Rat LD50: 15 gm/kg [Details of toxic effects not reported other than lethal dose value.] Oral - Mouse LD50: 10 gm/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory stimulation]

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:	No ecotoxicity data was found for the product.
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Environmental Fate: No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

RCRA Number: None.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: Non regulated.

DOT UN Number: N/A

DOT Hazard Class: Not applicable.

DOT Packing Group: Not applicable.

SECTION 15 - REGULATORY INFORMATION

Benzoyl peroxide :

TSCA Inventory Status: Listed

SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.

New Jersey: Listed: NJ Hazardous List; Substance Number: 0215

Massachusetts: Listed: Massachusetts Oil and Hazardous List

Pennsylvania: Listed

Canada DSL: Listed

Titanium dioxide :

TSCA Inventory Status: Listed

Massachusetts: Listed

Pennsylvania: Listed

Canada DSL: Listed

Dilaodecyl phthalate :

TSCA Inventory Status: Listed

California PROP 65: Listed: developmental

Canada DSL: Listed

Texanol Benzyl Phthalate :

TSCA Inventory Status: Listed

Canada DSL: Listed

Dilaobutyl Phthalate :

TSCA Inventory Status: Listed

Canada DSL: Listed

Canadian Regulations: WHMIS Hazard Class(es): D2B
All components of this product are on the Canadian Domestic Substances List.

SECTION 16 - ADDITIONAL INFORMATION

HMIS Fire Hazard: 1

HMIS Health Hazard: 1*

HMIS Reactivity: 3

HMIS Personal Protection: x

MSDS Revision Date: 12/15/2009

MSDS Author: Actio Corporation

Disclaimer: This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use

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of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.

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View MSDS : 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: **MA 550 ADHESIVE**
 Manufacturer Name: **ITW Plexus**
 Address: **30 Endicott Street
 Danvers, MA 01923**
 General Phone Number: **(978) 777-1100**
 Emergency Phone Number: **(800) 424-9300**
 CHEMTREC: **For emergencies in the US, call CHEMTREC: 800-424-9300**
 Canutec: **In Canada, call CANUTEC: (513) 996-6666 (call collect)**
 MSDS Revision Date: **12/15/2009**

HMIS	
Health Hazard	2*
Fire Hazard	3
REACTIVITY	2
Personal Protection	X

* Chronic Health Effects:

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Methyl Methacrylate Monomer	80-62-6	60 - 100 by weight
Non-hazardous Ingredients.	N/A	10 - 30 by weight
Trade secret.	N/A	10 - 30 by weight
Methacrylic acid	79-41-4	1 - 5 by weight
Paraffin wax	64742-43-4	0.1 - 1 by weight

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: **WARNING! Flammable. Harmful. Skin Sensitizer. Irritant.**
 Route of Exposure: **Eyes. Skin. Inhalation. Ingestion.**
 Potential Health Effects:
 Eye: **Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury..**
 Skin: **Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.**
 Inhalation: **Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals.**
 Ingestion: **Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.**
 Chronic Health Effects: **Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.**
 Signs/Symptoms: **Overexposure can cause headaches, dizziness, nausea, and vomiting.**
 Target Organs: **Eyes. Skin. Respiratory system. Digestive system. Central nervous system. Liver.. Kidney. Olfactory Function.**
 Aggravation of Pre-Existing Conditions: **Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.**

SECTION 4 - FIRST AID MEASURES

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
Skin Contact:	Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
Other First Aid:	Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties:	Flammable. Fine mists explosive below flash point.
Flash Point:	50°F (10°C)
Flash Point Method:	Tag Closed Cup (TCC)
Auto Ignition Temperature:	789°F
Lower Flammable/Explosive Limit:	1.7%
Upper Flammable/Explosive Limit:	12.5%
Fire Fighting Instructions:	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.
Extinguishing Media:	Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.
Unsuitable Media:	Water may cause frothing.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Unusual Fire Hazards:	Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill Cleanup Measures:	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue. Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash back. Ventilate area. Use proper personal protective equipment as listed in section 8.
Personnel Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways.
Other Precautions:	Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

SECTION 7 - HANDLING and STORAGE

Handling:	Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without proper cleaning or reconditioning.
Storage:	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.
Special Handling Procedures:	Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product. Hazardous liquid or vapor

residue may remain in emptied container. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.

Hygiene Practices:

Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
Eye/Face Protection:	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
Skin Protection Description:	Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.
Respiratory Protection:	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

EXPOSURE GUIDELINES

Methyl Methacrylate Monomer:

Guideline ACGIH:	50 ppm Sensitizer: Sen TLV-STEL: 100 ppm TLV-TWA: 50 ppm
Guideline OSHA:	100 ppm PEL-TWA: 100 ppm

Methacrylic acid:

Guideline ACGIH:	20 ppm TLV-TWA: 20 ppm
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Notes: Only established PEL and TLV values for the ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Paste..
Color:	off-white.
Odor:	Fragrant.
Boiling Point:	213°F (100.5°C)
Melting Point:	-54°F (-47.7°C)
Specific Gravity:	0.93-1.05
Solubility:	Not determined.
Vapor Density:	> 1 (air = 1)
Vapor Pressure:	28 mmHg @68°F
Percent Volatile:	Not determined.
Evaporation Rate:	3 (butyl acetate = 1)
pH:	Not determined.
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Flash Point:	50°F (10°C)
Flash Point Method:	Tag Closed Cup (TCC)
Auto Ignition Temperature:	789°F
VOC Content:	<50 g/L mixed.
Percent Solids by Weight	Not determined.

SECTION 10 - STABILITY and REACTIVITY

Chemical Stability:	Unstable.
Hazardous Polymerization:	Polymerization may occur under certain conditions.
Conditions to Avoid:	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber.
Incompatible Materials:	Oxidizing agents (eg peroxides, nitrates), reducing agents, acids, bases, azo-compounds, catalytic metals (eg copper, iron), halogens. Free radical initiators. Oxygen scavengers.

SECTION 11 - TOXICOLOGICAL INFORMATION**Methyl Methacrylate Monomer :**

RTECS Number: OZ5075000

Eye: Eye - Rabbit Standard Draize Test.: 150 mg

Skin: Intraperitoneal. - Guinea pig LD50: 1890 mg/kg [Behavioral - Somnolence (general depressed activity)]
 Subcutaneous - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)]
 Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression]
 Intraperitoneal. - Rat LD50: 1328 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Subcutaneous - Rat LD50: 7068 mg/kg [Behavioral - Somnolence (general depressed activity)]
 Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Intraperitoneal. - Mouse LD50: 945 mg/kg [Behavioral - Somnolence (general depressed activity)]
 Subcutaneous - Mouse LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)]

Oral - Rabbit LD50: 8700 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Administration onto the skin - Rabbit LD50: >5 gm/kg [Skin and Appendages - Dermatitis, other (After systemic exposure)]
 Oral - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Changes in structure or function of salivary glands]
 Administration onto the skin - Rabbit Open Irritation test: 10 gm

Inhalation: Inhalation - Rat LC50: 78000 mg/m3/4H [Details of toxic effects not reported other than lethal dose value.]
 Inhalation - Mouse LC50: 18500 mg/m3/2H [Details of toxic effects not reported other than lethal dose value.]

Ingestion: Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression]
 Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Methacrylic acid :

RTECS Number: OZ2975000

Skin: Unreported - Rat LD50: 1600 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Oral - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Intraperitoneal. - Mouse LD50: 48 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Unreported - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Oral - Rabbit LD50: 1200 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Administration onto the skin - Rabbit LD50: 500 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Administration onto the skin - Guinea pig LD50: 1 gm/kg [Details of toxic effects not reported other than lethal dose value.]
 Oral - Rat LD50: 1060 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Ingestion: Oral - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Oral - Rat LD50: 1060 mg/kg [Details of toxic effects not reported other than lethal dose value.]

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data was found for the product.
Environmental Fate: No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

RCRA Number: D001

Important Disposal Information: DANGER! Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: Adhesives
DOT UN Number: 1133
DOT Hazard Class: 3
DOT Packing Group: II
DOT Exemption: ORM-D Small quantity exemption

SECTION 15 - REGULATORY INFORMATION

Methyl Methacrylate Monomer:

TSCA Inventory Status: Listed
SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
New Jersey: Listed: NJ Hazardous List; Substance Number: 1277
Massachusetts: Listed: Massachusetts Oil and Hazardous List
Pennsylvania: Listed
Canada DSL: Listed

Methacrylic acid:

TSCA Inventory Status: Listed
Massachusetts: Listed: Massachusetts Oil and Hazardous List
Pennsylvania: Listed
Canada DSL: Listed

Paraffin wax:

TSCA Inventory Status: Listed
Canada DSL: Listed
Canadian Regulations: WHMIS Hazard Class(es): B2; D2B
All components of this product are on the Canadian Domestic Substances List.

SECTION 16 - ADDITIONAL INFORMATION

HMIS Fire Hazard: 3
HMIS Health Hazard: 2*
HMIS Reactivity: 2
HMIS Personal Protection: x
MSDS Revision Date: 12/15/2009
MSDS Author: Actio Corporation
Disclaimer: This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss.

Injury or damage which may result from its use. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.

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PLEXUS

STRUCTURAL ADHESIVES

View MSDS : 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
 SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: MA590 Activator - 50 Gal
 MSDS Manufacturer Number: 17175
 Manufacturer Name: ITW Plexus
 Address: 30 Endicott Street
 Danvers, MA 01923
 General Phone Number: (978) 777-1100
 Emergency Phone Number: (800) 424-9300
 CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300
 Canutec: In Canada, call CANUTEC: (613) 996-6666 (call collect)
 MSDS Revision Date: 12/15/2009

HAZARD	
FLAMMABILITY	2
REACTIVITY	2
Personal Protection	X

* Chronic Health Effects

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Texanol Benzyl Phthalate	16883-83-3	5 - 10 by weight
Methyl Methacrylate Monomer	80-62-6	30 - 60 by weight
Trade secret	N/A	10 - 30 by weight
3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine	34562-31-7	1 - 5 by weight
Phenol, 2,4-bis (1,1-dimethylethyl)-, phosphite	31570-04-4	0.1 - 1 by weight
Paraffin wax	64742-43-4	0.1 - 1 by weight

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:	WARNING! Flammable. Harmful. Skin Sensitizer.. Irritant.
Route of Exposure:	Eyes. Skin. Inhalation. Ingestion.
Potential Health Effects:	
Eye:	Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury.
Skin:	Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.
Inhalation:	Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals.
Ingestion:	Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.
Chronic Health Effects:	Prolonged skin contact may lead to burning associated with severe

Signs/Symptoms:	reddening, swelling, and possible tissue destruction.
Target Organs:	Overexposure can cause headaches, dizziness, nausea, and vomiting. Eyes. Skin. Respiratory system. Digestive system. Liver. Kidney. Olfactory Function.
Aggravation of Pre-Existing Conditions:	Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

SECTION 4 - FIRST AID MEASURES

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
Skin Contact:	Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
Other First Aid:	Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties:	Flammable. Fine mists explosive below flash point.
Flash Point:	50°F (10°C)
Flash Point Method:	Tag closed cup (TCC)
Auto Ignition Temperature:	789°F
Lower Flammable/Explosive Limit:	1.7%
Upper Flammable/Explosive Limit:	12.5%
Fire Fighting Instructions:	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.
Extinguishing Media:	Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.
Unsuitable Media:	Water may cause frothing.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Unusual Fire Hazards:	Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

NFPA Rating:

NFPA Health:

NFPA Reactivity:

NFPA Other:

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways.

Spill Cleanup Measures:

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue.

Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash back. Ventilate area. Use proper personal protective equipment as listed in section 8.

Other Precautions:

Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

SECTION 7 - HANDLING and STORAGE**Handling:**

Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without proper cleaning or reconditioning.

Storage:

Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.

Special Handling Procedures:

Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product. Hazardous liquid or vapor residue may remain in emptied container. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.

Hygiene Practices:

Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES**Engineering Controls:**

Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Eye/Face Protection:

Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

Skin Protection Description:

Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.

Respiratory Protection:

A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Other Protective:

Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

EXPOSURE GUIDELINES**Methyl Methacrylate Monomer:****Guideline ACGIH:**

50 ppm
Sensitizer.: Sen
TLV-STEL: 100 ppm
TLV-TWA: 50 ppm

Guideline OSHA:

100 ppm
PEL-TWA: 100 ppm

Notes:

Only established PEL and TLV values for the ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Paste.
Odor:	Fragrant.
Boiling Point:	>200°F (93.3°C)
Melting Point:	-54°F (-47.7°C)
Specific Gravity:	0.99
Solubility:	Not determined.
Vapor Density:	> 1 (air = 1)
Vapor Pressure:	28 mmHg @68°F
Percent Volatile:	Not determined.
Evaporation Rate:	3 (butyl acetate = 1)
pH:	Not determined.
Molecular Formula:	Mixture
Molecular Weight:	Mixture.
Flash Point:	50°F (10°C)
Flash Point Method:	Tag closed cup (TCC)
Auto Ignition Temperature:	789°F
VOC Content:	<50 g/L mixed.
Percent Solids by Weight:	Not determined.

SECTION 10 - STABILITY and REACTIVITY

Chemical Stability:	Unstable.
Hazardous Polymerization:	Polymerization may occur under certain conditions.
Conditions to Avoid:	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber.
Incompatible Materials:	Oxidizing agents (eg peroxides, nitrates), reducing agents, acids, bases, azo-compounds, catalytic metals (eg copper, iron), halogens. Free radical initiators. Oxygen scavengers.

SECTION 11 - TOXICOLOGICAL INFORMATION**Methyl Methacrylate Monomer:**

RTECS Number:	O25075000
Eye:	Eye - Rabbit Standard Draize Test.: 150 mg
Skin:	Intraperitoneal - Guinea pig LD50: 1890 mg/kg [Behavioral - Somnolence (general depressed activity)] Subcutaneous - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)] Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression] Intraperitoneal - Rat LD50: 1328 mg/kg [Details of toxic effects not reported other than lethal dose value.] Subcutaneous - Rat LD50: 7088 mg/kg [Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.] Intraperitoneal - Mouse LD50: 945 mg/kg [Behavioral - Somnolence (general depressed activity)] Subcutaneous - Mouse LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)]

Oral - Rabbit LD50: 8700 mg/kg [Details of toxic effects not reported other than lethal dose value.]
 Administration onto the skin - Rabbit LD50: >5 gm/kg (Skin and Appendages - Dermatitis, other (After systemic exposure))
 Oral - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Changes in structure or function of salivary glands]
 Administration onto the skin - Rabbit Open Initiation test: 10 gm

Inhalation: Inhalation - Rat LC50: 78000 mg/m3/4H [Details of toxic effects not reported other than lethal dose value.]
 Inhalation - Mouse LC50: 18500 mg/m3/2H [Details of toxic effects not reported other than lethal dose value.]

Ingestion: Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression]
 Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data was found for the product.
 Environmental Fate: No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

RCRA Number: D001
 Important Disposal Information: DANGER! Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: Adhesives
 DOT UN Number: 1133
 DOT Hazard Class: 3
 DOT Packing Group: II
 DOT Exemption: ORM-D Small quantity exemption

SECTION 15 - REGULATORY INFORMATION

Isocyanate Polyurethane
 TSCA Inventory Status: Listed
 Canada DSL: Listed
Methyl Methacrylate Monomer
 TSCA Inventory Status: Listed
 SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
 New Jersey: Listed: NJ Hazardous List; Substance Number: 1277
 Massachusetts: Listed: Massachusetts Oil and Hazardous List
 Pennsylvania: Listed

2/15/2011

<https://mail.google.com/a/synergy55.co...>

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Canada DSL: Listed
3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyridine
TSCA Inventory Status: Listed
Canada DSL: Listed
Phenol, 2,4-bis (1,1-dimethylethyl)-, phosphite
TSCA Inventory Status: Listed
Canada DSL: Listed
Paraffin wax
TSCA Inventory Status: Listed
Canada DSL: Listed
Canadian Regulations: WHMIS Hazard Class(es): B2; D2B
All components of this product are on the Canadian Domestic Substances List

WHMIS Pictograms



SECTION 16 - ADDITIONAL INFORMATION

HMIS Fire Hazard: 3
HMIS Health Hazard: 2+
HMIS Reactivity: 2
HMIS Personal Protection: X
MSDS Revision Date: 12/15/2009
MSDS Author: Actio Corporation
Disclaimer:

This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.

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GLOSSARY

PLEXUS

STRUCTURAL ADHESIVES

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SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: **MA 590 ADHESIVE**
 MSDS Manufacturer Number: **IT177**
 Manufacturer Name: **ITW Plexus**
 Address: **30 Endicott Street
 Danvers, MA 01923**
 General Phone Number: **(978) 777-1100**
 Emergency Phone Number: **(800) 424-9300**
 CHEMTREC: **For emergencies in the US, call CHEMTREC: 800-424-9300**
 Canotec: **In Canada, call CANUTEC: (613) 996-6666 (call collect)**
 MSDS Revision Date: **12/15/2009**

HMIS	
Health Hazard	2
Physical Hazard	2
Reactivity	2
Personal Protection	X

* Chronic Health Effects

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Dodecyl methacrylate	142-90-5	5 - 10 by weight
2-chloro-1,3-butadiene	9010-98-4	5 - 10 by weight
Methyl Methacrylate Monomer	80-62-6	30 - 60 by weight
Methoxy polyethylene glycol 350 methacrylate	26915-72-0	1 - 5 by weight
Tetradecyl methacrylate	2549-53-3	1 - 5 by weight
Trade secret	N/A	10 - 30 by weight
2,6-Di-tertiary-butyl-para-cresol	128-37-0	1 - 5 by weight
Chlorosulfonated polyethylene	68037-39-8	1 - 5 by weight
Hexadecyl methacrylate	2495-27-4	1 - 5 by weight
Paraffin wax	64742-43-4	0.1 - 1 by weight

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:	WARNING! Flammable. Harmful. Skin Sensitizer.. Irritant.
Route of Exposure:	Eyes, Skin, Inhalation, Ingestion.
Potential Health Effects:	
Eye:	Can cause moderate irritation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and permanent injury.
Skin:	Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible. May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.
Inhalation:	Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals.
Ingestion:	Causes irritation, a burning sensation of the mouth, throat and gastrointestinal

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Chronic Health Effects:	Irritant and abdominal pain.
Signs/Symptoms:	Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.
Target Organs:	Overexposure can cause headaches, dizziness, nausea, and vomiting.
Aggravation of Pre-Existing Conditions:	Eyes, Skin, Respiratory system, Digestive system, Liver, Kidney, Olfactory function.
	Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

SECTION 4 - FIRST AID MEASURES

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
Skin Contact:	Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
Other First Aid:	Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties:	Flammable. Fire mist explosive below flash point.
Flash Point:	50°F (10°C).
Flash Point Method:	Tan closed cup (TCC).
Auto Ignition Temperature:	Not determined.
Lower Flammable/Explosive Limit:	2.1%
Upper Flammable/Explosive Limit:	12.5%
Fire Fighting Instructions:	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.
Extinguishing Media:	Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.
Unsuitable Media:	Water may cause frothing.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Unusual Fire Hazards:	Sealed containers at elevated temperatures may rupture explosively and spread fire due to polymerization.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways.
Spill Cleanup Measures:	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue.
	Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. Vapors can flow along surfaces to distant ignition sources and flash back. Ventilate area. Use proper personal protective equipment as listed in section 8.
Other Precautions:	Pump or shovel to storage/salvage vessels. Add inhibitor to prevent polymerization.

SECTION 7 - HANDLING and STORAGE

Handling:	Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without proper cleaning or reconditioning.
Storage:	Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.
Special Handling Procedures:	Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product. Hazardous liquid or vapor residue may remain in emptied container. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.
Hygiene Practices:	Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls:	Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
Eye/Face Protection:	Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 165.
Skin Protection Description:	Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.
Respiratory Protection:	A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective:	Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

EXPOSURE GUIDELINES**Methyl Methacrylate Monomer:**

Guideline ACGIH:	50 ppm Sensitizer: Sen TLV-STEL: 100 ppm TLV-TWA: 50 ppm
Guideline OSHA:	100 ppm PEL-TWA: 100 ppm

2,6-Di-tert-butyl-pyridine (DTBP):

Guideline ACGIH:	2 mg/m3 TLV-TWA: 2 mg/m3 Inhalable vapor fraction (IVF)
------------------	--

Notes: Only established PEL and TLV values for the ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Paste.
Color:	off-white.
Odor:	Fragrant.
Boiling Point:	213°F (100.5°C)
Melting Point:	-54°F (-47.2°C)
Specific Gravity:	0.93-1.05
Solubility:	Not determined.
Vapor Density:	3.5 (air = 1)
Vapor Pressure:	28 mmHg @68°F
Percent Volatile:	Not determined.

Evaporation Rate:	3 (butyl acetate = 1)
Molecular Formula:	Mixture
Molecular Weight:	Mixture
Flash Point:	50°F (10°C)
Flash Point Method:	Tag closed cup (TCC)
Auto Ignition Temperature:	Not determined.
VOC Content:	≤50 g/L mixed.
Percent Solids by Weight:	Not determined.

SECTION 10 - STABILITY and REACTIVITY

Chemical Stability:	Unstable.
Hazardous Polymerization:	Polymerization may occur under certain conditions.
Conditions to Avoid:	Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber.
Incompatible Materials:	Oxidizing agents (eg peroxides, nitrates), reducing agents, acids, bases, azo compounds, catalytic metals (eg copper, iron), halogens. Free radical initiators. Oxygen scavengers.

SECTION 11 - TOXICOLOGICAL INFORMATION

Dioctyl methacrylate:

RTECS Number:	OZ4300000
Eye:	Eye - Rabbit Standard Draize Test: 500 mg/24H (mild)
Skin:	Intraperitoneal - Rat LD50: 12 gny/kg [Details of toxic effects not reported other than lethal dose value.] Intraperitoneal - Mouse LD50: 25 gny/kg [Details of toxic effects not reported other than lethal dose value.]

Z-chloro-1,3-butadiene:

RTECS Number:	EE9640000
Skin:	Oral - Rat LD50: >40 gny/kg [Details of toxic effects not reported other than lethal dose value.]
Ingestion:	Oral - Rat LD50: >40 gny/kg [Details of toxic effects not reported other than lethal dose value.]

Methyl Methacrylate Monomer:

RTECS Number:	OZ5075000
Eye:	Eye - Rabbit Standard Draize Test: 150 mg
Skin:	Intraperitoneal - Guinea pig LD50: 1890 mg/kg [Behavioral - Somnolence (general depressed activity)] Subcutaneous - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)] Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma Lungs, Thorax, or Respiration - Respiratory depression] Intraperitoneal - Rat LD50: 1328 mg/kg [Details of toxic effects not reported other than lethal dose value.] Subcutaneous - Rat LD50: 7088 mg/kg [Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.] Intraperitoneal - Mouse LD50: 945 mg/kg [Behavioral - Somnolence (general depressed activity)] Subcutaneous - Mouse LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)] Oral - Rabbit LD50: 8700 mg/kg [Details of toxic effects not reported other than lethal dose value.] Administration onto the skin - Rabbit LD50: >5 gny/kg [Skin and Appendages - Dermatitis, other (After systemic exposure)] Oral - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Changes in structure or function of salivary glands] Administration onto the skin - Rabbit Open irritation test: 10 gm Inhalation - Rat LC50: 78000 mg/m ³ /4H [Details of toxic effects not reported other than lethal dose value.] Inhalation - Mouse LC50: 18500 mg/m ³ /2H [Details of toxic effects not reported other than lethal dose value.]

other than lethal dose value.]
 Ingestion: Oral - Rat LD50: 7972 mg/kg [Behavioral - Muscle weakness Behavioral - Coma
 Lungs, Thorax, or Respiration - Respiratory depression]
 Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than
 lethal dose value.]

2,6-Bis(tert-butyl)-para-cresol:

RTECS Number: GO7875000
 Eye: Eye - Rabbit Standard Draize Test.: 100 mg/24H
 Skin: Oral - Mouse LD50: 650 mg/kg [Behavioral - Tremor Lungs, Thorax, or
 Respiration - Chronic pulmonary edema]
 Intraperitoneal - Mouse LD50: 138 mg/kg [Lungs, Thorax, or Respiration -
 Chronic pulmonary edema Lungs, Thorax, or Respiration - Other changes Blood -
 Hemorrhage]
 Intravenous - Mouse LD50: 180 mg/kg [Behavioral - Sleep]
 Oral - Guinea pig LD50: 10700 mg/kg [Gastrointestinal - Hypermotility, diarrhea
 Behavioral - Tremor Lungs, Thorax, or Respiration - Respiratory depression]
 Oral - Rabbit LD50: 2100 mg/kg [Details of toxic effects not reported other than
 lethal dose value.]
 Intraperitoneal - Rat LD50: 8 g/kg [Details of toxic effects not reported other
 than lethal dose value.]
 Oral - Mouse LD50: 650 mg/kg [Behavioral - Tremor Behavioral - Ataxia Lungs,
 Thorax, or Respiration - Other changes]
 Intraperitoneal - Mouse LD50: 138 mg/kg [Lungs, Thorax, or Respiration -
 Acute pulmonary edema Blood - Hemorrhage]
 Oral - Rat LD50: 890 mg/kg [Details of toxic effects not reported other than
 lethal dose value.]
 Oral - Mouse LD50: 1040 mg/kg [Details of toxic effects not reported other than
 lethal dose value.]
 Intraperitoneal - Mouse LD50: 138 mg/kg [Details of toxic effects not reported
 other than lethal dose value.]
 Subcutaneous - Mouse LD50: 650 mg/kg [Details of toxic effects not reported
 other than lethal dose value.]
 Oral - Guinea pig LD50: 10700 mg/kg [Details of toxic effects not reported other
 than lethal dose value.]
 Ingestion: Oral - Mouse LD50: 650 mg/kg [Behavioral - Tremor Lungs, Thorax, or
 Respiration - Chronic pulmonary edema]
 Oral - Mouse LD50: 650 mg/kg [Behavioral - Tremor Behavioral - Ataxia Lungs,
 Thorax, or Respiration - Other changes]
 Oral - Rat LD50: 890 mg/kg [Details of toxic effects not reported other than
 lethal dose value.]
 Oral - Mouse LD50: 1040 mg/kg [Details of toxic effects not reported other than
 lethal dose value.]

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data was found for the product.
 Environmental Fate: No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the
 classifications of hazardous waste prior to disposal. Furthermore, consult with
 your state and local waste requirements or guidelines, if applicable, to ensure
 compliance. Arrange disposal in accordance to the EPA and/or state and local
 guidelines.
 RCRA Numbers: D001, D019
 Important Disposal Information: DANGER! Rags, steel wool and waste soaked with this product may
 spontaneously catch fire if improperly discarded or stored. To avoid a
 spontaneous combustion fire, immediately after use, place rags, steel wool or
 waste in a sealed, water-filled, metal container.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: Adhesives
 DOT UN Number: 1133
 DOT Hazard Class: 3
 DOT Packing Group: II

DGL Exemption:

ORM-D Small quantity exemption

SECTION 15 - REGULATORY INFORMATIONDodecyl methacrylate:

TSCA Inventory Status: Listed

Canada DSL: Listed

2-chloro-1,3-butadiene:

TSCA Inventory Status: Listed

Canada DSL: Listed

Methyl methacrylate Monomer:

TSCA Inventory Status: Listed

EPCRA - 40 CFR Part 372 (SARA Title III) Section 313 Listed Chemical:

New Jersey: Listed: NJ Hazardous List; Substance Number: 1277

Massachusetts: Listed: Massachusetts Oil and Hazardous List

Pennsylvania: Listed

Canada DSL: Listed

Methoxy polyethylene glycol 350 methacrylate:

TSCA Inventory Status: Listed

Canada DSL: Listed

Tetraethyl methacrylate:

TSCA Inventory Status: Listed

Canada DSL: Listed

2,6-Dichloro-1,4-bisphenol-A:

TSCA Inventory Status: Listed

Massachusetts: Listed

Pennsylvania: Listed

Canada DSL: Listed

Chlorosulfonated polyethylene:

TSCA Inventory Status: Listed

Canada DSL: Listed

Heptadecyl methacrylate:

TSCA Inventory Status: Listed

Canada DSL: Listed

Paraffin wax:

TSCA Inventory Status: Listed

Canada DSL: Listed

Canadian Regulations:

WHMIS Hazard Class(es): D2, D2H

All components of this product are on the Canadian Domestic Substances List.

WHMIS Pictograms**SECTION 16 - ADDITIONAL INFORMATION**

HMIS Fire Hazard: 3

HMIS Health Hazard: 2

HMIS Reactivity: 2

HMIS Personal Protection: X

MSDS Revision Date: 12/15/2009

MSDS Author: Actio Corporation

Disclaimer:

This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within

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a controlled environment.

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ITW Plexus

Part No.: 0987

Material Safety Data Sheet

Page 1

MA 1025 ACTIVATOR

This product appears in the following stock number(s):

17237

Last revised: 07/08/99

Printed: 11/1/1999

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: MA 1025 ACTIVATOR

General use: This information applies only to the activator intended for use with MA 555 Adhesive. After proper mixing and curing, the product is not hazardous.

Chemical family: Organic peroxide solution

MANUFACTURER

ITW Plexus

30 Endicott St.

Danvers, Massachusetts 01923

EMERGENCY INFORMATION

Emergency telephone number

(CHEMTREC): (800) 424-9300

Other Calls: (978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS

Exposure limits

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Texanol Benzyl Phthalate		16883833	15-40	n/e	n/e	5 mg/m ³ (Manufacturer)
Magnesium sulfate, 99%		7487889	1-10	n/e	n/e	n/e (n/e)
Cumene hydroperoxide	CHP	80159	1-10	n/e	n/e	n/e
Dibutyl Phthalate	DIBP	84695	15-40	n/e	n/e	n/e
Benzoyl peroxide	BPO	94360	7-13	5 mg/m ³	5 mg/m ³	5 ppm (Canada)
Surfactant (<2.8% glycol ethers)			1-10	n/e	n/e	n/e

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Blue paste with little odor.

CAUTION! Reactive. Possible eye irritant. Keep away from heat, sparks, open flames. Do not store near combustibles. Wash thoroughly after handling.

M303019

OYSBD040

ITW Plexus

Part No.: 0987

Material Safety Data Sheet

Page 2

Potential health effectsPrimary routes of exposure: ☒ Skin contact ☐ Skin absorption ☒ Eye contact ☐ Inhalation ☐ Ingestion**Symptoms of acute overexposure:****Skin:** No acute effects reported for benzoyl peroxide at this dilution, although the pure peroxide can cause dermatitis.**Eyes:** May cause mild irritation.**Inhalation:**

Unlikely because of low vapor pressure of the mixture. Pure benzoyl peroxide causes respiratory irritation.

Ingestion:

Ingestion of di-n-butyl phthalate may cause hallucinations, distorted perceptions, nausea, or vomiting and kidney, ureter or bladder change

Effects of chronic overexposure:

Pure benzoyl peroxide is reported to be an allergen.

Carcinogenicity -- OSHA regulated: No**ACGIH:** No**National Toxicology Program:** No**International Agency for Research on Cancer:** No**Cancer-suspect constituent(s):** None**Medical conditions which may be aggravated by exposure:**

None reported

4. FIRST AID MEASURES**First aid for eyes:**

Flush eye with clean water for at least 15 minutes while gently holding eyelids open. Get immediate medical attention.

First aid for skin:

Wash thoroughly with soap and warm water. Consult a physician if irritation develops.

First aid for inhalation:

Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention.

First aid for ingestion:

Do not induce vomiting. If patient is conscious, dilute by giving water. Get prompt medical attention.

5. FIRE FIGHTING MEASURES**General fire and explosion characteristics:**

Decomposition products can be flammable. Self accelerating decomposition temperature is 129 F (estimated).

Extinguishing media:☐ Water☐ Carbon dioxide☒ Dry chemical☒ Foam☐ Alcohol foam**Flash Point (°F):** n/a**Method:** (No flashpoint method for peroxides)**Explosive limits in air (percent) -- Lower:** n/d**Upper:** n/d**Special firefighting procedures:**

If large amounts of material are involved, evacuate area and fight fire from safe distance. Cool fire-exposed containers with water.

Unusual fire and explosion hazards:

Benzoyl peroxide can decompose violently if heated strongly while confined.

Hazardous products of combustion:

Carbon monoxide and carbon dioxide.

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6. ACCIDENTAL RELEASE MEASURES

Spill control:

Evacuate area; eliminate ignition sources; wear protective clothing and overshoes.

Containment:

Dike, contain and absorb with clay, sand or other suitable material.

Cleanup:

Absorb spill on inert material such as vermiculite and transfer with nonsparking tools to impervious container.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Notify appropriate authorities as required.

7. HANDLING AND STORAGE

Handling precautions:

- Use nonsparking equipment.
- Do not get in eyes, on skin, or on clothing.
- Avoid breathing vapors.
- Use only as directed; avoid uncontrolled mixing with other materials, especially polymerizable or combustible materials.

Storage:

- Keep well closed in a cool, dark place. Storage above 100 F will reduce useful life of the material.
- Keep from heat, sparks, and open flame. Exposure to high heat can cause violent reaction.
- Do not store near combustibles.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation :

Local exhaust is recommended for confined areas. General mechanical ventilation is adequate for normal use.

Other engineering controls :

Have emergency eye wash and safety showers in area.

Personal protective equipment

Eye and face protection:

Safety glasses with side shields.

Skin protection:

Chemical resistant rubber gloves are recommended.

Respiratory protection:

None required at normal handling temperatures.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	n/d	Boiling point (°F):	n/d
Melting point (°F):	n/d	Vapor density (air = 1):	n/d
Vapor pressure (mmHg):	n/d at 0 °F	Evaporation rate (butyl acetate = 1):	<<1
VOC (grams/liter):	0	Solubility in water:	Slight
Percent volatile by volume:	<1	pH (5% solution or slurry in water):	Neutral
Percent solids by weight:	99		

10. STABILITY AND REACTIVITY

This material is chemically unstable. Hazardous polymerization will not occur.

Conditions to avoid :

Heat, spark, open flame, contamination, and friction

Incompatible materials:

Strong acids and bases, strong oxidizers, amines, polymerization accelerators.

Hazardous products of decomposition:

Flammable and toxic fumes including organic acids; carbon monoxide and carbon dioxide from complete combustion

Conditions under which hazardous polymerization may occur:

None

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): > 5000 mg/kg

BPO: slightly toxic to practically non-toxic to rats. DBP: high oral doses given to pregnant animals produced minor abnormalities in off-spring.

Acute dermal effects: LD50 (rabbit): No data

BPO: non-irritating to rabbits (4-hr exposure). Repeated controlled human skin contact studies produced skin allergy.

Acute inhalation effects: LC50 (rat): n/d

Exposure: 4 hours.

BPO: practically non-toxic to rats (LC50 > 22.4 mg/L, 4-hr)

Eye irritation:

BPO: severely irritating to rabbits. DBP: slight irritant (human)

Subchronic effects:

DBP: 90 day dermal rabbit study, LOEL at 4200 mg/kg/day affected kidney. Oral animal studies showed effects of the testes, liver, and reduced weight gain.

Carcinogenicity, teratogenicity, and mutagenicity:

BPO: both positive and negative (mutagenic and non-mutagenic) responses occurred in tests with animal or bacterial cells. Repeated skin application with a known carcinogen enhanced skin tumor production in mice by the carcinogen. DBP: animal studies showed teratogenic and reproductive effects. Mouse lymphoma assay was positive with activation and negative without activation. Dibutyl Phthalate has been shown to cause birth defects in laboratory animal studies. The relevance of these findings to humans is unknown.

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Other chronic effects:

BPO: Rats fed dose of 2800 mg/kg for 2-yrs showed increase incidence of testicular atrophy.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Texanol Benzyl Phthalate	> 15.8 g/kg	> 10.0 g/kg	n/d
Magnesium sulfate, 99%	n/d	1760 mg/kg	n/d
Cumene hydroperoxide	382 mg/kg	1200 mg/kg	220 ppm
Dilsobutyl Phthalate	16 g/kg	n/d	n/d
Benzoyl peroxide	7710 mg/kg	n/d	n/d
Surfactant (<2.6% glycol ethers)	n/d	n/d	n/d

n/d = 'not determined'

12 ECOLOGICAL INFORMATION

Ecotoxicity:

96 hr, LC50 guppy (semi-static) = 2.0 mg/l, moderately toxic, DBP: moderate BOD, may cause oxygen depletion in aqueous systems, a high potential to affect some aquatic organisms, a low potential to affect germination &/or early growth of some plants and seedlings.

Mobility and persistence:

BPO: almost 80 % biodegradation was reached after 28 days in the closed bottle ready biodegradability test. DBP: expected to biodegrade and not persist for long periods in an aquatic environment.

Environmental fate:

BPO: EC50 = 35 mg/L absorbed to gel for activated sludge respiration inhibition.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:

Dispose of in accordance to applicable federal, state, and local regulation. Incineration or fuel blending are the preferred methods of disposal.

14. TRANSPORT INFORMATION

Proper shipping name: Non-regulated
Technical name: N/A
Hazard class: N/A
UN number: N/A
Packing group: N/A
Emergency Response Guide no.: N/A
IMDG page number: N/A
Other:

15. REGULATORY INFORMATION

U.S. Federal RegulationsTSCA

All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:

none

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Texanol Benzyl Phthalate	No	No	1.0	Not required
Magnesium sulfate, 99%	No	No	0.0	Not required
Cumene hydroperoxide	No	Yes	10.0	Not required
Diisobutyl Phthalate	No	No	0.0	Not required
Benzoyl peroxide	No	Yes	0.0	Not required
Surfactant (<2.8% glycol ethers)	No	Yes	0.0	Not required

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard - Reactivity hazard -

Canadian regulations

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WHMIS hazard class(es) : C; D2B

Regulatory notes:

In normal use, the methyl methacrylate in this product is polymerized during cure. For purposes of air quality regulations, the maximum amount of VOC (i.e. MMA) emitted is negligible (less than 5%). Actual emissions are a function of substrate and process and should be considered on an individual basis.

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings:	Health <div style="border: 1px solid black; width: 30px; height: 20px; margin: 0 auto; text-align: center; line-height: 20px;">1</div>	Flammability <div style="border: 1px solid black; width: 30px; height: 20px; margin: 0 auto; text-align: center; line-height: 20px;">2</div>	Reactivity <div style="border: 1px solid black; width: 30px; height: 20px; margin: 0 auto; text-align: center; line-height: 20px;">2</div>
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Revisions for this issue:

MSDS section	Revisions
2	Updated constituents

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.

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MA 1025 ADHESIVE

This product appears in the following stock number(s):

IT232 IT235 IT236

Last revised: 03/24/89

Printed: 03/24/1991

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: MA 1025 ADHESIVE

General use: Adhesive. See Section 15 concerning VOC information.

Chemical family: Acrylate

MANUFACTURER

ITW Plexus

30 Endicott St.

Danvers, Massachusetts 01923

EMERGENCY INFORMATION

Emergency telephone number

(CHEMTREC): (800) 424-9300

Other Calls: (978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS

Exposure limits

Constituent	Abbr.	OAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Styrene		100425	< 1	20 ppm	50 ppm	50 ppm (Canada)
Texanol Benzyl Phthalate		15883533	7-13	n/e	n/e	5 mg/m3 (Manufacturer)
Isopropanol	IPA	57630	< 1	400 ppm	400 ppm	400 ppm (Canada)
Methyl Methacrylate Monomer	MMA	80825	30-60	100 ppm	100 ppm	100 ppm (Canada)

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Off-white paste with varied fragrant odor.

WARNING! Flammable. Keep away from heat, sparks, open flames. Overexposure may have the following effects:
EYE AND SKIN EXPOSURE: Irritant and potential skin sensitizer. May cause redness, itching, burning, rash.
RESPIRATORY EXPOSURE: Irritant. May cause headache, nausea, dizziness, fatigue, drowsiness. Chronic overexposure may cause liver and kidney effects. Contains styrene which may cause cancer. Avoid breathing vapor. Use with adequate ventilation or use proper respiratory equipment. Wash thoroughly after handling. Do not take internally.

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Potential health effects

Primary routes of exposure: ☒ Skin contact ☒ Skin absorption ☒ Eye contact ☒ Inhalation ☐ Ingestion

Symptoms of acute overexposure:

Skin: May cause irritation and sensitization.

Eyes: Liquid and vapors causes moderate irritation.

Inhalation:

High concentration is irritant to respiratory tract and may cause dizziness, headache, and anaesthetic effects.

Ingestion:

Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.

Effects of chronic overexposure:

Prolonged exposure may lead to kidney, lung, and liver damage, not likely to cause cancer. Not believed to represent a carcinogenic or mutagenic hazard.

Carcinogenicity - OSHA regulated: No

ACGIH: No

National Toxicology Program: No

International Agency for Research on Cancer: Yes

Cancer-suspect constituent(s): Styrene

Medical conditions which may be aggravated by exposure:

Preexisting eye and skin disorders.

Other effects:

Developmental toxicity observed in animal tests with MMA, but only at levels toxic to the mother.

4. FIRST AID MEASURES

First aid for eyes:

Flush eye with clean water for at least 15 minutes while gently holding eyelids open. Get immediate medical attention.

First aid for skin:

Immediately remove contaminated clothing and excess contaminant. Flush skin with water. Wash thoroughly with warm soap and water. Consult a physician if irritation develops.

First aid for Inhalation:

Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention if symptoms persist.

First aid for Ingestion:

Do NOT induce vomiting. Give two glasses of water to dilute if patient is conscious. Get medical attention.

5. FIRE FIGHTING MEASURES

General fire and explosion characteristics:

Vapor forms explosive mixture with air.

Extinguishing media:

☐ Water

☒ Carbon dioxide

☒ Dry chemical

☒ Foam

☐ Alcohol foam

Flash Point (°F): 50

Method: TCC

Explosive limits in air (percent) -- Lower: 2.1

Upper: 12.5

Special firefighting procedures:

Keep personnel removed and upwind from fire. Wear self contained breathing apparatus and full protective equipment. Cool tank with water spray. Fight fire from a distance as the heat may rupture the tanks.

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Unusual fire and explosion hazards:

Sealed containers at elevated temperatures may rupture due to polymerization. Vapors are heavier than air and may travel to ignition sources and flash back.

Hazardous products of combustion:

Carbon monoxide, carbon dioxide and smoke.

6. ACCIDENTAL RELEASE MEASURES

Spill control:

Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:

Dike, contain and absorb with clay, sand or other suitable non-combustible material.

Cleanup:

For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly (RCRA hazardous waste). Add inhibitor to prevent polymerization.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Use non-sparking tools

7. HANDLING AND STORAGE

Handling precautions:

Do not breathe vapor or mist. Do not get in eyes, on skin or clothing. Wash thoroughly after handling. Close container after each use. Ground container when pouring. Keep away from heat, flame or sparks. Use non-sparking tools.

Storage:

Keep in a cool place, without direct exposure to sunlight. Keep container tightly closed and otherwise in accordance with NFPA regulations. Maintain air space in storage containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation:

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits.

Other engineering controls:

Keep container tightly closed. Observe label precautions. Have emergency eyewash and safety shower present.

Personal protective equipment

Eye and face protection:

Wear safety glasses. Wear coverall chemical splash goggles and face shield when eye and face contact is possible.

Skin protection:

Wear impervious butyl rubber clothing as appropriate to prevent contact.

Respiratory protection:

A NIOSH/MSHA air purifying respirator with an organic vapor cartridge may be permissible, however use a positive pressure air supplied respirator if there is any potential for uncontrolled release, or unknown exposure levels.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	0.98	Boiling point (°F):	218
Melting point (°F):	-54	Vapor density (air = 1):	> 1
Vapor pressure (mmHg):	28 mm Hg at 88 °F	Evaporation rate (butyl acetate = 1):	3
VOC (grams/liter):	< 50 mixed	Solubility in water:	n/d
Percent volatile by volume:	n/d	pH (5% solution or slurry in water):	
Percent solids by weight:	n/d		

10. STABILITY AND REACTIVITY

This material is chemically unstable. Hazardous polymerization may occur.

Conditions to avoid :

Unstable with heat.

Incompatible materials:

Incompatible with strong oxidizing agents and reducing agents, acids and bases. Material is a strong solvent and can soften paint and rubber.

Hazardous products of decomposition:

Carbon monoxide, carbon dioxide and smoke.

Conditions under which hazardous polymerization may occur:

Excessive heat, storage in the absence of inhibitor and inadvertent addition of catalyst.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): > 2000 mg/kg estimate

Toxicity of MMA exposed near LD50 include blood in the urine and liver changes.

Acute dermal effects: LD50 (rabbit): > 1700 mg/kg estimate

Dermatitis.

Acute inhalation effects: LC50 (rat): n/d

Exposure: 4 hours.

Toxicity of MMA at 8-100 times TLV from respiratory and gastrointestinal irritation, lung damage, nervous system effects and blood in urine.

Eye irritation:

Not available.

Subchronic effects:

Inhalation: Repeated exposure of MMA at 5-100 times the TLV include lung damage, pulmonary irritation, liver changes, eye irritation, nasal tissue changes, incoordination and upper respiratory irritation. Ingestion: Liver and kidney affects with altered function in both organs. Skin permeation may occur.

Carcinogenicity, teratogenicity, and mutagenicity:

Tests with MMA indicate no effects on embryotoxicity, fetotoxicity nor teratogenic effects even in the presence of maternal toxicity.

Other chronic effects:

Inhalation: long term exposure of MMA caused inflammation of the nasal cavity, changes in nasal sensory cells and

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decreased body weight. Ingestion: Can cause decreased body weight, and increased kidney weight

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Styrene	5000 mg/kg	n/d	24,000 mg/m3
Texanol Benzyl Phthalate	> 15.8 g/kg	> 10.0 g/kg	n/d
Isopropanol	5045 mg/kg	12.8 g/kg	22627 ppm
Methyl Methacrylate Monomer	7872 mg/kg	> 5000 mg/kg	7098 ppm

'n/d' = 'not determined'

12 ECOLOGICAL INFORMATION

Ecotoxicity:

MMA has: estimate of 96 hour median threshold limit: 100-1,000 ppm; 96 hour LC50, fathead minnow: 150 ppm; 96 hour LC50, bluegill sunfish: 232 ppm. MAA has: LC50 = 85mg/l, 96 hr, Rainbow trout (slightly toxic); EC50 > 130 mg/l, 48 hr, Daphnia magna (practically non-toxic); EC50 = 0.6 mg/l, 96 hr, Algae (highly toxic).

Mobility and persistence:

MMA is partially biodegradable in water. BOD-5 day: 0.14 g/g - 0.90 g/g; THOD : 1.92 g/g. MAA readily biodegraded (86% within 28 days) under aerobic conditions.

Environmental fate:

MMA produces high tonnage material in wholly contained systems. Liquid with moderate mobility. Sparingly soluble in water. High potential for bioaccumulation. Low mobility in soil.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:

Do not dispose of in a landfill. Incineration is the preferred method of disposal.

14. TRANSPORT INFORMATION

Proper shipping name: Adhesives
 Technical name : N/A
 Hazard class : 3
 UN number: 1133
 Packing group: II
 Emergency Response Guide no.: 127
 IMDG page number: 3174
 Other:

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OYSBD051

15. REGULATORY INFORMATION

U.S. Federal Regulations**TSCA**

All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory. Export notification is required under TSCA Sec. 12B - see below.

The following RCRA code(s) applies to this material if it becomes waste:

D001

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Styrene	No	Yes	1000.0	Not required
Texanol Benzyl Phthalate	No	No	1.0	Not required
Isopropanol	No	No	0.0	Not required
Methyl Methacrylate Monomer	No	Yes	1000.0	Not required

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard - Delayed health hazard - Fire hazard - Reactivity hazard -

Canadian regulations

WHMIS hazard class(es): B2; D2B; D2A

Regulatory notes:

In normal use, the methyl methacrylate in this product is polymerized during cure. For purposes of air quality regulations, the maximum amount of VOC (i.e. MMA) emitted is negligible (less than 5%). Actual emissions are a function of substrate and process and should be considered on an individual basis.

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings:	Health	Flammability	Reactivity
	2*	3	2

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.

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MA 422 / MA 425 / MA 922 / MA 925 ACTIVATOR

This product appears in the following stock number(s):

35925 35940 IT131 IT151 IT153 IT154 IT155

Last revised: 08/24/99

Printed: 8/25/1999

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: MA 422 / MA 425 / MA 922 / MA 925 ACTIVATOR

General use: This information applies only to the activator intended for use with an adhesive. After proper mixing and curing, the product is not hazardous.

Chemical family: Organic peroxide solution

MANUFACTURER

ITW Plexus
30 Endicott St.
Danvers, Massachusetts 01923

EMERGENCY INFORMATION

Emergency telephone number
(CHEMTREC): (800) 424-9300
Other Calls: (878) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS

Exposure limits

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Diisobutyl Phthalate	DIBP	84895	20-40	n/e	n/e	n/e
Benzoyl peroxide	BPO	94360	10-30	5 mg/m ³	5 mg/m ³	5 ppm (Canada)
Surfactant (<1.4% glycol ethers)		*	<5	n/e	n/e	n/e

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: viscous liquid with little odor.

CAUTION! Reactive. Possible eye irritant. Keep away from heat, sparks, open flames. Do not store near combustibles. Wash thoroughly after handling.

Potential health effects

Primary routes of exposure: ☒ Skin contact ☐ Skin absorption ☒ Eye contact ☐ Inhalation ☐ Ingestion

Symptoms of acute overexposure:

Skin: Irritant. Contact at elevated temperatures can cause thermal burns. No acute effects reported for benzoyl peroxide at this dilution, although the pure peroxide can cause dermatitis.

Eyes: Irritant. Contact at elevated temperatures can cause thermal burns.

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Inhalation:

High vapor concentrations are irritating to nose, throat, lungs, and eyes.

Ingestion:

Acute oral toxicity is low. May cause gastric distress. May cause central nervous system depression.

Effects of chronic overexposure:

Pure benzoyl peroxide is reported to be an allergen.

Carcinogenicity - OSHA regulated: No**ACGIH:** No**National Toxicology Program:** No**International Agency for Research on Cancer:** No**Cancer-suspect constituent(s):** None**Medical conditions which may be aggravated by exposure:**

Preexisting eye, skin and respiratory disorders.

Other effects:

See section 11.

4. FIRST AID MEASURES**First aid for eyes:**

Flush eye with clean water for at least 15 minutes while gently holding eyelids open. Get immediate medical attention.

First aid for skin:

Immediately remove contaminated clothing and excess contaminant. Flush skin with water. Wash thoroughly with soap and warm water. Consult a physician if irritation develops.

First aid for inhalation:

Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention if symptoms persist.

First aid for ingestion:

Do NOT induce vomiting. Give two glasses of water to dilute if patient is conscious. Get medical attention.

5. FIRE FIGHTING MEASURES**General fire and explosion characteristics:**

Decomposition products can be flammable. Self accelerating decomposition temperature is 129 F (estimated).

Extinguishing media:☐ Water☒ Carbon dioxide☒ Dry chemical☒ Foam☐ Alcohol foam**Flash Point (°F):** Not available**Method:** (No flashpoint method for peroxides)**Explosive limits in air (percent) - Lower:** Not available**Upper:** Not available**Special firefighting procedures:**

If large amounts of material are involved, evacuate area and fight fire from safe distance. Do not enter confined space without full bunker gear. Firefighters should wear self-contained breathing apparatus and protective clothing. Cool fire exposed containers with water spray.

Unusual fire and explosion hazards:

Benzoyl peroxide can decompose violently if heated strongly while confined. Flammable gases and vapors may form during decomposition and cause flash back.

Hazardous products of combustion:

When heated to decomposition it emits carbon dioxide, carbon monoxide, biphenyl and other fumes and vapors varying in composition and toxicity.

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6. ACCIDENTAL RELEASE MEASURES

Spill control:

Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:

Dike, contain and absorb with clay, sand or other suitable material.

Cleanup:

Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly. Flush area with water to remove trace residue. Use non-sparking tools.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Notify appropriate authorities as required.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities.

Laundry contaminated clothing and protective gear before reuse. Discard contaminated leather articles.

Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations. Use non-sparking equipment. Bond and ground containers when transferring contents.

Storage:

Store in a cool, dry area away from high temperatures and flames. Storage above 100 F will reduce useful life of the material. Keep from heat, sparks, and open flame. Do not store near combustibles.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation :

Local exhaust ventilation is preferred although good general mechanical ventilation is usually adequate for most industrial applications. Local exhaust is recommended for confined areas.

Other engineering controls :

Have emergency shower and eye wash available.

Personal protective equipment

Eye and face protection:

Safety glasses with side shields.

Skin protection:

Chemical-resistant gloves and other gear as required to prevent skin contact.

Respiratory protection:

None required at normal handling temperatures and conditions. Use NIOSH approved organic vapor cartridges for uncured activator and dust/particle respirators during grinding/sanding operations of cured product as exposure levels dictate.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.0-1.25	Boiling point (°F):	n/d
Melting point (°F):	n/d	Vapor density (air = 1):	n/d
Vapor pressure (mmHg):	n/d at 171 °F	Evaporation rate (butyl acetate = 1):	<<1
VOC (grams/liter):	n/d	Solubility in water:	slight
Percent volatile by volume:	n/d	pH (5% solution or slurry in water):	neutral
Percent solids by weight:	n/d		

10. STABILITY AND REACTIVITY

This material is chemically unstable. Hazardous polymerization will not occur.

Conditions to avoid:

Heat, spark, open flame, contamination, and friction

Incompatible materials:

Strong acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines), metal salts, reducing agents and accelerators.

Hazardous products of decomposition:

Oxides of carbon; biphenyl, flammable and toxic fumes, and other organic substances may be formed during combustion.

Conditions under which hazardous polymerization may occur:

Not expected to occur under normal temperatures and pressures.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): No data available.

BPO: slightly toxic to practically non-toxic to rats.

Acute dermal effects: LD50 (rabbit): No data available.

BPO: non-irritating to rabbits (4-hr exposure). Repeated controlled human skin contact studies produced skin allergy.

Acute inhalation effects: LC50 (rat): No data available

Exposure: hours.

BPO: practically non-toxic to rats (LC50 > 22.4 mg/L, 4-hr)

Eye irritation:

BPO: severely irritating to rabbits.

Subchronic effects:

No data available.

Carcinogenicity, teratogenicity, and mutagenicity:

BPO: both positive and negative (mutagenic and non-mutagenic) responses occurred in tests with animal or bacterial cells. Repeated skin application with a known carcinogen enhanced skin tumor production in mice by the carcinogen.

Other chronic effects:

BPO: Rats fed dose of 2800 mg/kg for 2-yrs showed increase incidence of testicular atrophy.

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ITW Plexus

Material Safety Data Sheet

Part No.: 0983

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Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LD50 4hr, (rat)
Diisobutyl Phthalate	15 g/kg	n/d	n/d
Benzoyl peroxide	7710 mg/kg	n/d	n/d
Surfactant (<1.4% glycol ethers)	n/d	n/d	n/d

n/d = not determined

12 ECOLOGICAL INFORMATION

Ecotoxicity:

BPO: 96 hr, LC50 guppy (semi-static) = 2.0 mg/l, moderately toxic.

Mobility and persistence:

BPO: almost 60 % biodegradation was reached after 28 days in the closed bottle ready biodegradability test.

Environmental fate:

BPO: EC50 = 35 mg/L absorbed to gel for activated sludge respiration inhibition.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:

If this resin becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

Proper shipping name: Non-regulated

Technical name : N/A

Hazard class : N/A

UN number: N/A

Packing group: N/A

Emergency Response Guide no.: N/A

IMDG page number: N/A

Other: N/A

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ITW Plexus

Part No.: 0983

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15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA

All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:

None

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Diisobutyl Phthalate	No	No	0.0	Not required
Benzoyl peroxide	No	Yes	0.0	Not required
Surfactant (<1.4% glycol ethers)	No	Yes	0.0	Not required

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substances list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard - Reactivity hazard -

Canadian regulations

WHMIS hazard class(es): D2B;C

Regulatory notes:

In normal use, the adhesive mixed with this product is polymerized during cure. For purposes of air quality regulations, the maximum amount of VOC (i.e. MMA) emitted is low (less than 10%). Actual emissions are a function of substrate and process and should be considered on an individual basis.

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings:	Health	Flammability	Reactivity
	1	1	2

Revisions for this issue:

MSDS section	Revisions
2	Reformulated

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.

MSDS0510

OYSBD058

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MATERIAL SAFETY DATA SHEET

SECTION I - IDENTIFICATION

TRADE NAME: POLYCOR
DESCRIPTION: CONDUCTIVE TOOLING *gel-coat*
PRODUCT CODE IDENTITY: 945B023
NPCA HMIS RATING: H 2* F 3 R 2
COMPANY NAME: COOK COMPOSITES AND POLYMERS CO.
ADDRESS: 820 E. 14th AVENUE
NORTH KANSAS CITY, MO 64116
CUSTOMER:

REVISION: 12
LAST REVISED: 11/07/2002
DATE OF ISSUE: 08/20/2007

PREPARED BY:
HAZARD COMMUNICATION DEPT.
INFORMATION TELEPHONE:
COMPOSITES: 1-800-821-3590
POLYMERS: 1-800-488-5541

ATTENTION:

24 HOUR RESPONSE NUMBER (CHEMTREC): 1-800-424-9300 (NORTH AMERICA)
703-527-3887 (INTERNATIONAL)

CCP certifies that its products comply with all the provisions of the Toxic Substances Control Act (TSCA), unless otherwise stated by ingredient in Section II.

*** The percent by weight composition data given in Sections II ***
*** and X are NOT SPECIFICATIONS, but are based on 'target' ***
*** formula values for each ingredient in the product. The data ***
*** are presented as ranges for low hazard ingredients and single ***
*** point values for ingredients of regulatory concern. Actual ***
*** batch concentrations will vary within limits consistent with ***
*** separately established product specifications. ***

SECTION II INGREDIENTS

1
CAS# 027253-31-2
COBALT NEODECANOATE, 26% COBALT
PCT BY WT: .0600
EXPOSURE LIMIT:
ACGIH TLV/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME
OSHA PEL/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME

2
CAS# 000136-52-7
COBALT 2-ETHYLHEXANOATE, 12% COBALT
PCT BY WT: .1040
EXPOSURE LIMIT:
ACGIH TLV/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME
OSHA PEL/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME

3
CAS# 001333-86-4
CARBON BLACK
PCT BY WT: 4.2490
EXPOSURE LIMIT:
ACGIH TLV/TWA: 3.5 MG/CU.M.
OSHA PEL/TWA: 3.5 MG/CU.M.
LD50, Oral: NOT AVAILABLE
LD50, Dermal: NOT AVAILABLE
LC50, Inhalation: NOT AVAILABLE
OTHER: NIOSH REL: 3.5 MG/CU.M.

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4
CAS# 000100-42-5
STYRENE MONOMER
PCT BY WT: 46.9200 VAPOR PRESSURE: 4.500 MMHG @ 68F



Material Safety Data Sheet

MSDS no. 14511V1

WHMIS (Canada) B-2 D-2A D-2B	NFPA (USA) Health Reactivity Specific hazard	HMS (USA) Flammability Personal protection	Protective clothing
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Section 1. Chemical product and company identification

Trade name	G370LV12100
Product type	Gel Coat
Chemical family	Aromatic
Material uses	Used in the manufacture of thermoset plastic parts.
Manufacturer AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri	In case of emergency CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666

Section 2. Hazards identification

OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1810.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.
Potential chronic health effects	CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. Titanium Dioxide: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. Talc: Classified A2 (suspected for human) by ACGIH. Classified 1 (proven for human) by IARC. Classified 1 (known) by NTP. Methyl Methacrylate: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 3 (not classifiable for human) by IARC. Silica, Amorphous: Classified 3 (not classifiable for human) by IARC. Cobalt Compounds: Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database. Other: Prolonged exposure may cause dermatitis. Repeated or prolonged overexposure to near lethal concentrations can produce liver and kidney damage.

IMPORTANT: While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

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G370LV12100

Section 3. Composition/Information on Ingredients

Name	CAS #	% by weight
1) Styrene	100-42-5	26.6
2) Titanium Dioxide	13463-67-7	20 - 30
3) Aluminum Hydroxide	21645-51-2	5 - 10
4) Talc	14807-96-6	5 - 10
5) Methyl Methacrylate	80-62-6	3.0
6) Silica, Amorphous	7631-86-9	1 - 5
7) Cobalt Compounds	Mixture	0.1 - 1

Section 4. First aid measures

Eye contact	Flush with a continuous flow of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will aid in removal. Seek medical attention.
Skin contact	Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. If irritation persists, seek medical attention.
Inhalation	Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Ingestion	Do not induce vomiting. Seek immediate medical attention.

Section 5. Fire fighting measures

The product is:	Flammable liquid, Class IC.
Auto-ignition temperature	790°F(421°C) Methyl Methacrylate
Flash point	75 - 89°F (24.8 - 32°C)
Flammable limits	Lower: 0.9% Upper: 12.5%
Products of combustion	May produce carbon monoxide, carbon dioxide, and irritating or toxic vapors, gases or particulate.
Fire hazard	Flammable in the presence of open flames, sparks, or heat.
Explosion hazard	Can react with oxidizing materials. Explosive in the form of vapor when exposed to heat or flame. Material may polymerize when container is exposed to heat (fire) and polymerization will increase pressure in a closed container which may cause the container to rupture violently.
Fire-fighting media and instructions	SMALL FIRE: Use carbon dioxide, foam, dry chemical or water fog to extinguish. LARGE FIRE: Evacuate surrounding areas. Use carbon dioxide, foam, dry chemical or water fog to extinguish. Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Prevent run off to sewers or other water ways.

Section 6. Accidental release measures

Small spill	Absorb with an inert material and place in an appropriate waste disposal container.
Large spill	Stop leak if without risk. Eliminate all ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas.

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Section 7. Handling and storage

Handling

WARNING! Use only in well-ventilated areas. Store away from direct sunlight. Avoid inhalation and contact with eyes, skin, and clothing. Wear appropriate personal protective equipment for your task. Ground and bond all containers when transferring the material. Empty containers may retain product and product vapor. Do not expose to heat, flame, sparks or other ignition sources such as cutting, welding, drilling, grinding or static electricity. Do not pressurize. Provide adequate safety showers and eyewashes in the area of use.
Note: If product contains metal compounds (Section III), avoid dust from dried product or grinding of articles made from this material.

Storage

Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Containers should be grounded.

Section 8. Exposure controls/personal protection

Exposure limits

Styrene

ACGIH TLV (United States, 1/2008). Skin
TWA: 20 ppm 8 hour(s).
TWA: 85 mg/m³ 8 hour(s).
STEL: 40 ppm 15 minute(s).
STEL: 170 mg/m³ 15 minute(s).

OSHA PEL Z2 (United States, 11/2006).
TWA: 100 ppm 8 hour(s).
CEIL: 200 ppm
AMP: 600 ppm 5 minute(s).

Titanium Dioxide

ACGIH TLV (United States, 1/2007).
TWA: 10 mg/m³ 8 hour(s).

OSHA PEL (United States, 11/2006).
TWA: 15 mg/m³ 8 hour(s). Form: Total dust
OSHA PEL 1989 (United States, 3/1989).

Aluminum Hydroxide

TWA: 10 mg/m³ 8 hour(s). Form: Total dust
ACGIH TLV (United States, 2007). Notes: Total Respirable
TWA: 10 mg/m³ Form: Aluminum metal and insoluble compounds

OSHA PEL (United States).
TWA: 5 mg/m³ Form: Respirable fraction
TWA: 15 mg/m³ Form: Total particulates

Talc

ACGIH TLV (United States, 1/2007).
TWA: 0.1 f/cc 8 hour(s).

NIOSH REL (United States, 12/2001).
TWA: 2 mg/m³ 10 hour(s). Form: Respirable fraction
OSHA PEL 1989 (United States, 3/1989).

TWA: 2 mg/m³ 8 hour(s). Form: Respirable dust
OSHA PEL Z3 (United States, 9/2005).
STEL: 1 f/cc 30 minute(s). Form: not containing asbestos
TWA: 20 mppcf 8 hour(s). Form: not containing asbestos

Methyl Methacrylate

OSHA PEL (United States).
TWA: 100 ppm
TWA: 410 mg/m³
ACGIH TLV (United States). Skin sensitizer
TWA: 50 ppm
TWA: 410 mg/m³

Silica, Amorphous

NIOSH REL (United States, 12/2001).
TWA: 6 mg/m³ 10 hour(s).

Cobalt Compounds

OSHA PEL (United States).
TWA: 0.1 mg/m³
ACGIH TLV (United States).
TWA: 0.02 mg/m³

Engineering controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Provide adequate safety showers and eyewashes in the area of use.

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G370LV12100

Section 8. Exposure controls/personal protection

Personal protection	<p>Personal protective equipment may vary depending on the job being performed.</p> <p>Eye/face: Wear eye protection such as safety glasses with side shields, splash goggles or face shield with safety glasses.</p> <p>Skin: Avoid skin contact. Impervious gloves should be worn. Other items may include long sleeves, lab coats, or impervious jackets.</p> <p>Respiratory: Determine if airborne concentrations are below the recommended exposure limits in accordance with your company's PPE program and regulatory requirements. If they are not, select a NIOSH-approved respirator that provides adequate protection from the concentration levels encountered. Air-purifying respirators are generally adequate for organic vapors. Use positive pressure, supplied-air respirators if there is potential for an uncontrolled release, if exposure levels are unknown, or under circumstances where air-purifying respirators may not provide adequate protection.</p> <p>Reference OSHA 29 CFR 1910.134.</p>
Personal protection in case of a large spill	Chemical resistant gloves, full protective suit, and boots. Respiratory protection in accordance with OSHA regulation 29 CFR 1910.134. A self-contained breathing apparatus should be used to avoid inhalation of the product vapors.

Section 9. Physical and chemical properties

Physical state	Liquid.
Color	White.
Odor	Aromatic.
Molecular weight (g/mol)	Not available.
Boiling point	214°F(101°C) Methyl Methacrylate
Melting point	Not available.
pH (1% soln/water)	Not applicable.
Vapor pressure	40 mm Hg@ 77°F (25°C) Methyl Methacrylate
Vapor density	3.5 - 3.6 (Air = 1)
Specific gravity	1.1 to 1.4 (Water = 1)
Water/oil dist. coeff.	Not available.
Evaporation rate	Not available.
Odor threshold	<1.0 ppm
Solubility in water	Slight.
Dispersibility properties	Slight dispersion in water.

Section 10. Stability and reactivity

Stability	This product is normally stable, but can become unstable at elevated temperatures.
Instability temperature	>120°F (48.9°C)
Conditions of instability	Heat.
Incompatibility with various substances	Polymerizes in the presence of organic peroxides, oxidizing materials, or heat.
Corrosivity	Our database contains no additional remark on the corrosivity of this product

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MSDS no. : 14511V1		G370LV12100			
Section 11. Toxicological information					
Toxicity to animals	Name	Result	Species	Dose	Exposure
	Styrene	LD50 Oral	Rat	2650 mg/kg	-
		LC50 Inhalation Vapor	Rat	5634.2 ppm	4 hours
	Titanium Dioxide	LD Intratracheal	Rat	>100 ug/kg	-
		LD50 Oral	Rat	>10000 mg/kg	-
		TDLo	Rat	1.6 mg/kg	-
		Intratracheal			
		TDLo	Rat	1.25 mg/kg	-
		Intratracheal			
		TDLo Oral	Rat	60 g/kg	-
		TDLo	Rat	5 mg/kg	-
		Intratracheal			
	Methyl Methacrylate	LD50 Oral	Rat	7872 mg/kg	-
		LC50 Inhalation Gas.	Rat	7094 ppm	4 hours
	Cobalt Compounds	LD50 Oral	Rat	6171 mg/kg	-
Special remarks on toxicity to animals	Lung effects have been observed in mouse studies following repeated exposure.				
Special remarks on chronic effects on humans	Repeated or prolonged overexposure to near lethal concentrations can produce liver and kidney damage..				
Special remarks on other toxic effects on humans	<p>Talc: Exposure to dusts containing talc can be toxic and can produce acute and chronic effects. Contact with dusts may irritate the eyes. Breathing dust may irritate the nose and throat and cause coughing and chest discomfort. There are reports that relatively mild pneumoconiosis can develop after years of occupational exposure to mixed dusts containing talc. Prolonged inhalation may also produce a fibrotic response.</p> <p>Methyl Methacrylate: MMA has both acute and chronic effects. Inhalation overexposure may result in irritation of nose and throat, headache, nausea, vomiting, dizziness, irritation of upper respiratory tract and unconsciousness. Overexposure will result in moderate irritation to the skin, eyes and mucous membranes. Prolonged skin contact may cause dermatitis. Chronic exposure can cause headache and nausea, central nervous system depression, and ultimately liver, lung or kidney damage. An allergic skin reaction may also be possible.</p>				

Section 12. Ecological information	
Ecotoxicity	Toxic to aquatic organisms. Should not be released to sewage system or other bodies of water at concentrations above limits established in regulations or permits.

Section 13. Disposal considerations	
Waste disposal	Recycle to process, if possible. Consult your local or regional authorities. Ignitable characteristic.

Section 14. Transport information		
DOT	UN1866; Resin Solution; 3; III.	Labels 
TDG	UN1866; Resin Solution; 3; III.	
IATA/IMDG	IATA: UN1866; Resin Solution; 3; III; Pkg. Inst.: Passenger - 309; Cargo - 310 IMDG: UN1866; Resin Solution; 3; III; FP=24.8° - 32°C; EmS No.: F-E, S-E	
Additional information	US regulations require the reporting of spills when the amount exceeds the Reportable Quantity (RQ) for specific components of this material. See CERCLA in Section 15, Regulatory Information, for the Reportable Quantities.	

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Section 15. Regulatory Information

Other regulations

This section does not reference all applicable regulatory compliance lists.

TSCA: All ingredients are listed or compliant with TSCA.

DSL: All ingredients are listed or compliant with the NSNR.

Proposition 65 Warning: This product contains a chemical(s) known to the State of California to cause cancer, birth defects and/or reproductive harm.

SARA 302 component(s): None.

SARA 313 component(s): Styrene, Methyl Methacrylate, Cobalt Compounds.

GERCLA(RQ): Styrene - 1000 lbs. (453.6 kg)
Methyl Methacrylate - 1000 lbs. (453.6 kg)

Section 16. Other Information

Prepared by

AOC, LLC - Corporate Regulatory Affairs.

DTN



LEGAL DISCLAIMER

The information contained in this data sheet is furnished in good faith and without warranty, representation, or inducement or license of any kind, except that it is accurate to the best of AOC, LLC's knowledge, or was obtained from sources believed by AOC, LLC to be reliable. The accuracy, adequacy or completeness of health and safety precautions set forth herein cannot be guaranteed, and the buyer is solely responsible for ensuring that the product is used, handled, stored, and disposed of safely and in compliance with applicable federal, state or provincial, and local laws. AOC, LLC disclaims liability for any loss, damage or personal injury that arises from, or is in any way related to, use of the information contained in this data sheet.

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OYSBD066

MSDS no. 15376V1

<div>WHMIS (Canada)</div> <div></div> <div>B-2 D-2A D-2B</div>	<div><div>NFPA (USA)</div><div><div>Fire</div><div>3</div><div>2</div><div>1</div></div><div><div>Health</div><div>Reactivity</div></div><div>Specific hazard</div></div>	<div><div>HMIS (USA)</div><table><tr><td>Health hazards</td><td>2</td></tr><tr><td>Flammability</td><td>3</td></tr><tr><td>Physical hazards</td><td>1</td></tr><tr><td>Personal protection</td><td>X</td></tr></table></div>	Health hazards	2	Flammability	3	Physical hazards	1	Personal protection	X	<div><div>Protective clothing</div><div></div></div>
Health hazards	2										
Flammability	3										
Physical hazards	1										
Personal protection	X										

Section 1. Chemical product and company identification	
Trade name	G370LV51020
Product type	Gel Coat
Chemical family	Aromatic.
Material uses	Used in the manufacture of thermoset plastic parts.
Manufacturer AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri	In case of emergency CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666

Section 2. Hazards Identification	
OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.
Potential chronic health effects	CARCINOGENIC EFFECTS: <u>Styrene:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. <u>Titanium Dioxide:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. <u>Talc:</u> Classified A2 (suspected for human) by ACGIH. Classified 1 (proven for human) by IARC. Classified 1 (known) by NTP. <u>Methyl Methacrylate:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 3 (not classifiable for human) by IARC. <u>Silica, Amorphous:</u> Classified 3 (not classifiable for human) by IARC. <u>Cobalt Compounds:</u> Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database. Other: Prolonged exposure may cause dermatitis. Repeated or prolonged overexposure to near lethal concentrations can produce liver and kidney damage.

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MSDS no. : 15376V1

G370LV51020

Section 3. Composition/Information on Ingredients

Name	CAS #	% by weight
1) Styrene	100-42-5	26.5
2) Titanium Dioxide	13463-67-7	10 - 20
3) Aluminum Hydroxide	21645-51-2	10 - 20
4) Talc	14807-96-6	5 - 10
5) Methyl Methacrylate	80-62-6	3.0
6) Silica, Amorphous	7631-86-9	1 - 5
7) Cobalt Compounds	Mixture	0.1 - 1

Section 4. First aid measures

Eye contact	Flush with a continuous flow of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will aid in removal. Seek medical attention.
Skin contact	Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. If irritation persists, seek medical attention.
Inhalation	Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Ingestion	Do not induce vomiting. Seek immediate medical attention.




Section 5. Fire fighting measures

The product is:	Flammable liquid, Class IC.
Auto-ignition temperature	790°F(421°C) Methyl Methacrylate
Flash point	75 - 89°F (24.8 - 32°C)
Flammable limits	Lower: 0.9% Upper: 12.5%
Products of combustion	May produce carbon monoxide, carbon dioxide, and irritating or toxic vapors, gases or particulate.
Fire hazard	Flammable in the presence of open flames, sparks, or heat.
Explosion hazard	Can react with oxidizing materials. Explosive in the form of vapor when exposed to heat or flame. Material may polymerize when container is exposed to heat (fire) and polymerization will increase pressure in a closed container which may cause the container to rupture violently.
Fire-fighting media and instructions	SMALL FIRE: Use carbon dioxide, foam, dry chemical or water fog to extinguish. LARGE FIRE: Evacuate surrounding areas. Use carbon dioxide, foam, dry chemical or water fog to extinguish. Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Prevent run off to sewers or other water ways.

Section 6. Accidental release measures

Small spill	Absorb with an inert material and place in an appropriate waste disposal container.
Large spill	Stop leak if without risk. Eliminate all ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas.

MSDS no. 15377V1

<div>WHMIS (Canada)</div> <div></div> <div>B-2 D-2A D-2B</div>	<div>NFPA (USA)</div> <div>Fire</div> <div></div> <div>Health</div> <div>Reactivity</div> <div>Specific hazard</div>	<div>HMIS (USA)</div> <table><tr><td>Health hazards</td><td>2</td></tr><tr><td>Flammability</td><td>3</td></tr><tr><td>Physical hazards</td><td>1</td></tr><tr><td>Personal protection</td><td>X</td></tr></table>	Health hazards	2	Flammability	3	Physical hazards	1	Personal protection	X	<div>Protective clothing</div> <div></div>
Health hazards	2										
Flammability	3										
Physical hazards	1										
Personal protection	X										

Section 1. Chemical product and company identification

Trade name	G370PA51020
Product type	Gel Coat
Chemical family	Aromatic.
Material uses	Used in the manufacture of thermoset plastic parts.
<p>Manufacturer</p> <p>AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri</p>	<p>In case of emergency</p> <p>CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666</p>

Section 2. Hazards identification

OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	<p>Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision.</p> <p>Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis.</p> <p>Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.</p> <p>Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.</p>
Potential chronic health effects	<p>CARCINOGENIC EFFECTS:</p> <p><u>Styrene:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure.</p> <p><u>Titanium Dioxide:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC.</p> <p><u>Methyl Methacrylate:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 3 (not classifiable for human) by IARC.</p> <p><u>Talc:</u> Classified A2 (suspected for human) by ACGIH. Classified 1 (proven for human) by IARC. Classified 1 (known) by NTP.</p> <p><u>Silica, Amorphous:</u> Classified 3 (not classifiable for human) by IARC.</p> <p><u>Cobalt Compounds:</u> Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC.</p> <p>MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database.</p> <p>Other: Prolonged exposure may cause dermatitis. Repeated or prolonged overexposure to near lethal concentrations can produce liver and kidney damage.</p>

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Section 3. Composition/information on ingredients

Name	CAS #	% by weight
1) Styrene	100-42-5	28.7
2) Titanium Dioxide	13463-67-7	10 - 20
3) Aluminum Hydroxide	21645-51-2	10 - 20
4) Methyl Methacrylate	80-62-6	7.4
5) Talc	14807-96-6	1 - 5
6) Silica, Amorphous	7631-86-9	1 - 5
7) Cobalt Compounds	Mixture	0.1 - 1

Section 4. First aid measures

Eye contact	Flush with a continuous flow of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will aid in removal. Seek medical attention.
Skin contact	Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. If irritation persists, seek medical attention.
Inhalation	Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Ingestion	Do not induce vomiting. Seek immediate medical attention.

Section 5. Fire fighting measures

The product is:	Flammable liquid, Class IC.
Auto-ignition temperature	790°F(421°C) Methyl Methacrylate
Flash point	75 - 89°F (24.8 - 32°C)
Flammable limits	Lower: 0.9% Upper: 12.5%
Products of combustion	May produce carbon monoxide, carbon dioxide, and irritating or toxic vapors, gases or particulate.
Fire hazard	Flammable in the presence of open flames, sparks, or heat.
Explosion hazard	Can react with oxidizing materials. Explosive in the form of vapor when exposed to heat or flame. Material may polymerize when container is exposed to heat (fire) and polymerization will increase pressure in a closed container which may cause the container to rupture violently.
Fire-fighting media and instructions	SMALL FIRE: Use carbon dioxide, foam, dry chemical or water fog to extinguish. LARGE FIRE: Evacuate surrounding areas. Use carbon dioxide, foam, dry chemical or water fog to extinguish. Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Prevent run off to sewers or other water ways.

Section 6. Accidental release measures

Small spill	Absorb with an inert material and place in an appropriate waste disposal container.
Large spill	Stop leak if without risk. Eliminate all ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas.

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MATERIAL SAFE

Post-it® Fax Note 7671

Interplastic
1225 Willow
Vadnais Heights

24-Hour Emergency Tel

Date	4/21	# of pages	13
To	Bob Fink	From	Green
Co./Dept	Ocean yacht	Co.	Mahogany Co.
Phone #		Phone #	
Fax #	465-4914	Fax #	

ATTN: PLANT MGR/SAFETY DIR
MAHOGANY CO - MAYS LANDING
5450 ATLANTIC AVE
PO BOX 99
MAYS LANDING NJ 08330-0099

Revision Date: 10/24/96

Issue Date: 01/12/99

MSDS File id: MSDSLET4

Customer No: 5422586000

Whse No: 0003

This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard)

SECTION I - Product Identification

Product Name: W-708-NUU WHITE NPG MARINE GEL COAT
UN/NA Number: UN1866
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid

SECTION II - Hazardous Components

Ingredient	Cas No.	Percent	OSHA-PEL	ACGIH-TLV NOTE
Unsaturated Polyester Base Resin	See Index		None-Estb.	None-Est.
Styrene	100-42-5	29-36	50 ppm TWA	50 ppm (1)
METHYL METHACRYLATE	80-62-6	04-05	100 ppm	100 ppm

(1) OSHA ceiling value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute ceiling.

SECTION III - Physical Data

Property	Measurement
Initial Boiling Point	For Styrene 293.40 DEG F @ 760.00 MMHG
Vapor Pressure (20 DEG C)	For Styrene 4.3 MMHG For Methyl Methacrylate (MMA) 29.0 MMHG
Vapor Density	Air = 1 3.6
Specific Gravity	1.2 - 1.35 @ 77.00 DEG F (25.00 DEG C)
Percent Non-volatiles	%
Evaporation Rate	Slower than Ether

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MATERIAL SAFETY DATA SHEET

Interplastic Corporation
1225 Willow Lake Blvd
Vadnais Heights, MN 55110-5145

24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Revision Date: 10/24/96
Issue Date: 03/29/99
MSDS File id: MSDSLET4
Customer No:
Whee No: 003

This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard)

SECTION I - Product Identification

Product Name: W-708-NUU WHITE NPG MARINE GEL COAT
UN/NA Number: UN1866
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid

SECTION II - Hazardous Components

Ingredient	Cas No.	Percent	OSHA PEL	ACGIH-TLV NOTE
Unsaturated Polyester Base Resin	See Index		None-Estb.	None-Est.
Styrene	100-42-5	29-36	50 ppm TWA	50 ppm (1)
METHYL METHACRYLATE	80-62-6	04-05	100 ppm	100 ppm

(1) OSHA ceiling value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute ceiling.

SECTION III - Physical Data

Property	Measurement
Initial Boiling Point For Styrene	293.40 DEG F @ 760.00 MMHG
Vapor Pressure (20 DEG C) For Styrene For Methyl Methacrylate(MMA)	4.3-MMHG 29.0 MMHG
Vapor Density Air = 1	3.6
Specific Gravity	1.2 - 1.35 @ 77.00 DEG F (25.00 DEG C)
Percent Non-volatiles	0
Evaporation Rate	Slower than Ether

MATERIAL SAFETY DATA SHEET
REVISION DATE: MAY 21, 2009

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: B-5601
PRODUCT DESCRIPTION: AQUA MIST PATCHING GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS <CODE>
HEALTH: <2>
* CAUTION!
* MAY BE HARMFUL IF SWALLOWED OR INHALED
* MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
* MAY CAUSE ALLERGIC SKIN REACTION
* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: <3>
* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: <2>
* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <---->

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
STYRENE MONOMER [1]	000100-42-5	29	50 ppm	20 ppm
UNSATURATED POLYESTER RESIN	MIXTURE	21 - 31	100 ppm	20 ppm
TITANIA	013463-67-7	8 - 18	15 mg/m3	10 mg/m3
MAGNESIUM SILICATE	014807-96-6	7 - 17	5 mg/m3	2 mg/m3
METHYL METHACRYLATE [1]	000080-62-6	8	100 ppm	50 ppm
ACRYLIC POLYMER	015625-89-5	1 - 8	N/A	N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

***** PHYSICAL DATA *****

BOILING POINT, °C (°F): >145 (293)
 VAPOR PRESSURE, mm Hg: <5 @ 20°C (68°F)
 VAPOR DENSITY (AIR=1): 3.6 (styrene)
 SOLUBILITY IN WATER: NEGLIGIBLE
 SPECIFIC GRAVITY (H2O=1): 1.26 +/- 5% @ 25°C
 PERCENT VOLATILE: 37
 EVAPORATION RATE (ETHER=1): <1
 APPEARANCE/ODOR: GREEN LIQUID WITH PUNGENT ODOR

***** FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT °C (°F): 30-35 (87-95)
 FLAMMABILITY CLASSIFICATION: CLASS 1C
 AUTOIGNITION TEMPERATURE, °C (°F): 490 (914)
 FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1
 BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

***** PRODUCT HEALTH HAZARD INFORMATION *****

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

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MATERIAL SAFETY DATA SHEET
REVISION DATE: APRIL 2, 2008

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: B-5662
PRODUCT DESCRIPTION: DARK GREEN NAI GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS (CODE)
HEALTH: (2)
* CAUTION!
* MAY BE HARMFUL IF SWALLOWED OR INHALED
* MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
* MAY CAUSE ALLERGIC SKIN REACTION
* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: (3)
* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: (2)
* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	35 - 45	100 ppm	
STYRENE MONOMER [1]	000100-42-5	21	50 ppm	20 ppm
METHYL METHACRYLATE [1]	000080-62-6	16	100 ppm	100 ppm
MAGNESIUM SILICATE	014807-96-6	7 - 17	5 mg/m3	2 mg/m3
SILICON DIOXIDE	007631-86-9	1 - 6	20 mpcf	10 mg/m3

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

***** PHYSICAL DATA *****

BOILING POINT, °C (°F): >145 (293)
VAPOR PRESSURE, mm Hg: <5 @ 20°C (68°F)
VAPOR DENSITY (AIR=1): 3.6 (styrene)
SOLUBILITY IN WATER: NEGLIGIBLE
SPECIFIC GRAVITY (H2O=1): 1.15 +/- 5% @ 25°C
PERCENT VOLATILE: 37
EVAPORATION RATE (ETHER=1): <1
APPEARANCE/ODOR: GREEN LIQUID WITH PUNGENT ODOR

***** FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT °C (°F): 30-35 (87-95)
FLAMMABILITY CLASSIFICATION: CLASS 1C
AUTOIGNITION TEMPERATURE, °C (°F): 490 (914)
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1
BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

***** PRODUCT HEALTH HAZARD INFORMATION *****

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

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MATERIAL SAFETY DATA SHEET
REVISION DATE : AUGUST 8, 2007

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: LHM-5601
PRODUCT DESCRIPTION: HydroShield LITE AQUA MIST GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS (CODE)
HEALTH: (2)
* CAUTION!
MAY BE HARMFUL IF SWALLOWED OR INHALED
MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
* MAY CAUSE ALLERGIC SKIN REACTION
* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: (3)
* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: (2)
* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	24 - 34	50 ppm	20 ppm
STYRENE MONOMER [1]	000100-42-5	27	50 ppm	20 ppm
TITANIA	013463-67-7	11 - 21	15 mg/m3	10 mg/m3
MAGNESIUM SILICATE	014807-96-6	8 - 18	5 mg/m3	2 mg/m3
MIXTURE	015625-89-5	1 - 10	N/A	N/A
METHYL METHACRYLATE [1]	000080-62-6	3	100 ppm	100 ppm
SILICON DIOXIDE	007631-86-9	1 - 6	20 mppcf	10 mg/m3

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

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***** PHYSICAL DATA *****

BOILING POINT, °C (°F): 145 (293)
VAPOR PRESSURE, mm Hg: 5 @ 20°C (68°F)
VAPOR DENSITY (AIR=1): 3.6 (styrene)
SOLUBILITY IN WATER: NEGLIGIBLE
SPECIFIC GRAVITY (H₂O=1): 1.38 +/- 5% @ 25°C
PERCENT VOLATILE: 30
EVAPORATION RATE (ETHER=1): 1
APPEARANCE/ODOR: GREEN LIQUID WITH PUNGENT ODOR

***** FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT °C (°F): 30-35 (87-95)
FLAMMABILITY CLASSIFICATION: CLASS 1C
AUTOIGNITION TEMPERATURE, °C (°F): 490 (914)
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1

BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

***** PRODUCT HEALTH HAZARD INFORMATION *****

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

page 2 of 5

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MATERIAL SAFETY DATA SHEET
REVISION DATE : MARCH 10, 2008

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: LHM-6615
PRODUCT DESCRIPTION: HydroShield LITE ICE BLUE GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS (CODE)
HEALTH: (2)
* CAUTION!
* MAY BE HARMFUL IF SWALLOWED OR INHALED
* MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
* MAY CAUSE ALLERGIC SKIN REACTION
* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: (3)
* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: (2)
* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	28 - 38	50 ppm	20 ppm
STYRENE MONOMER [1]	000100-42-5	27	50 ppm	20 ppm
MAGNESIUM SILICATE	014807-96-6	11 - 21	5 mg/m3	2 mg/m3
TITANIA	013463-67-7	3 - 13	15 mg/m3	10 mg/m3
MIXTURE	015625-89-5	1 - 11	N/A	N/A
METHYL METHACRYLATE [1]	000080-62-6	4	100 ppm	100 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

2-b

***** PHYSICAL DATA *****

BOILING POINT, °C (°F): >145 (293)
VAPOR PRESSURE, mm Hg: <5 @ 20°C (68°F)
VAPOR DENSITY (AIR=1): 3.6 (styrene)
SOLUBILITY IN WATER: NEGLIGIBLE
SPECIFIC GRAVITY (H2O=1): 1.29 +/- 5% @ 25°C
PERCENT VOLATILE: 31
EVAPORATION RATE (ETHER=1): <1
APPEARANCE/ODOR: BLUE LIQUID WITH PUNGENT ODOR

***** FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT °C (°F): 30-35 (87-95)
FLAMMABILITY CLASSIFICATION: CLASS 1C
AUTOIGNITION TEMPERATURE, °C (°F): 490 (914)
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1
BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

***** PRODUCT HEALTH HAZARD INFORMATION *****

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

page 2 of 5

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MATERIAL SAFETY DATA SHEET
REVISION DATE : SEPTEMBER 8, 2009

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: LHM-2900
PRODUCT DESCRIPTION: HydroShield LITE WHITE GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS (CODE)
HEALTH: (2)
* CAUTION!
* MAY BE HARMFUL IF SWALLOWED OR INHALED
* MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
* MAY CAUSE ALLERGIC SKIN REACTION
* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: (3)
* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: (2)
* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	23 - 33	100 ppm	20 ppm
STYRENE MONOMER [1]	000100-42-5	27	50 ppm	20 ppm
TITANIA	013463-67-7	11 - 21	15 mg/m3	10 mg/m3
MAGNESIUM SILICATE	014807-96-6	10 - 20	5 mg/m3	2 mg/m3
ACRYLIC POLYMER	015625-89-5	1 - 9	N/A	N/A
METHYL METHACRYLATE [1]	000080-62-6	3	100 ppm	50 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

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***** PHYSICAL DATA *****

BOILING POINT, °C (°F): >145 (293)
VAPOR PRESSURE, mm Hg: <5 @ 20°C (68°F)
VAPOR DENSITY (AIR=1): 3.6 (styrene)
SOLUBILITY IN WATER: NEGLIGIBLE
SPECIFIC GRAVITY (H2O=1): 1.38 +/- 5% @ 25°C
PERCENT VOLATILE: 30
EVAPORATION RATE (ETHER=1): <1
APPEARANCE/ODOR: WHITE LIQUID WITH PUNGENT ODOR

***** FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT °C (°F): 30-35 (87-95)
FLAMMABILITY CLASSIFICATION: CLASS 1C
AUTOIGNITION TEMPERATURE, °C (°F): 490 (914)
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1
BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

***** PRODUCT HEALTH HAZARD INFORMATION *****

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

page 2 of 5

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MATERIAL SAFETY DATA SHEET

INTERPLASTIC CORPORATION
1225 Willow Lake Boulevard
St. Paul, MN 55110-5145
(651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 05/03/07
Revision Date: 04/27/04
MSDS File ID: MSDSLET4
Customer No:
Warehouse No: 001

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name: NAC COMPU-COLOR GELCOAT
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid
Shipping Name: Resin Solution, 3, UN1866, PG II

SECTION II - HAZARDOUS COMPONENTS

INGREDIENT	CAS NO.	PERCENT	OSHA-PEL	ACGIH-TL NOTE
Unsaturated Polyester Base Resin	See Index		None-Estb.	None-Est
Styrene	100-42-5	33-36	50 ppm TWA	50 ppm (1)
METHYL METHACRYLATE	80-62-6	04-05	100 ppm	100 ppm
(1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.				

SECTION III - PHYSICAL DATA

PROPERTY	MEASUREMENT
Initial Boiling Point	For Methyl Methacrylate 212 Deg F (100 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Methyl Methacrylate 35 mm Hg 68 Deg F (20 Deg C)
Specific Gravity	1.15 - 1.20 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1 3.6
Evaporation Rate	Butylacrylate=1 3.1

OYSBD083

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PRODUCT: NAC COMPU-COLOR GELCOAT

SECTION IV - FIRE AND EXPLOSION DATA

Flash Point: 73 Deg F (22.7 Deg C) for Volatile Component
Methyl methacrylate

Flammable: (Lowest Value of Styrene) Lower - 1.7%
(Upper Value of Styrene) Upper - 8.2%

Extinguishing Media: Foam, carbon dioxide, dry chemical, or water fog.

Hazardous Decomposition Products: May form toxic materials such as carbon dioxide, carbon monoxide, and various hydrocarbons.

Special Firefighting Procedures: Wear self-contained breathing apparatus with a full facepiece operated in pressure demand or other positive pressure mode when fighting fires.

Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by ignition sources at locations distant from material handling point.

Never use welding or cutting torch on or near drum (even empty) because product vapor can ignite explosively.

SECTION V - HEALTH DATA

Permissible Exposure Level: Not established for product. See Section II.

POTENTIAL HEALTH EFFECTS

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation, defatting, dermatitis.

Inhalation - Excessive inhalation of vapors can cause nasal irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.

Swallowing - Can cause gastrointestinal irritation, nausea, vomiting, diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis.



MATERIAL SAFETY DATA SHEET
REVISION DATE: MARCH 29, 2011

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: B-2900
PRODUCT DESCRIPTION: WHITE PATCHING GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS <CODE>

HEALTH:

<2>

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: <3>

- * WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: <2>

- * CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
STYRENE MONOMER [1]	000100-42-5	29	50 ppm	20 ppm
UNSATURATED POLYESTER RESIN	MIXTURE	20 - 30	100 ppm	20 ppm
TITANIA	013463-67-7	11 - 21	15 mg/m ³	10 mg/m ³
MAGNESIUM SILICATE	014807-96-6	6 - 16	5 mg/m ³	2 mg/m ³
METHYL METHACRYLATE [1]	000080-62-6	7	100 ppm	50 ppm
ACRYLIC POLYMER	015625-89-5	1 - 11	N/A	N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313



MATERIAL SAFETY DATA SHEET
REVISION DATE: JANUARY 12, 2010

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: B-6615
PRODUCT DESCRIPTION: ICE BLUE PATCHING GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS <CODE>

HEALTH:

<2>

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: <3>

- * WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: <2>

- * CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	25 - 35	100 ppm	20 ppm
STYRENE MONOMER [1]	000100-42-5	30	50 ppm	20 ppm
MAGNESIUM SILICATE	014807-96-6	8 - 18	5 mg/m ³	2 mg/m ³
TITANIA	013463-67-7	1 - 11	15 mg/m ³	10 mg/m ³
METHYL METHACRYLATE [1]	000080-62-6	6	100 ppm	50 ppm
ACRYLIC POLYMER	015625-89-5	1 - 9	N/A	N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

- [1] NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

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MATERIAL SAFETY DATA SHEET
REVISION DATE: MARCH 10, 2008

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: B-6615
PRODUCT DESCRIPTION: ICE BLUE PATCHING GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS (CODE)
HEALTH: (2)
* CAUTION!
* MAY BE HARMFUL IF SWALLOWED OR INHALED
* MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
* MAY CAUSE ALLERGIC SKIN REACTION
* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: (3)
* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: (2)
* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	25 - 35	50 ppm	20 ppm
STYRENE MONOMER [1]	000100-42-5	30	50 ppm	20 ppm
MAGNESIUM SILICATE	014807-96-6	8 - 18	5 mg/m3	2 mg/m3
TITANIA	013463-67-7	1 - 11	15 mg/m3	10 mg/m3
METHYL METHACRYLATE [1]	000080-62-6	6	100 ppm	100 ppm
MIXTURE	015625-89-5	1 - 9	N/A	N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

2-b

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MATERIAL SAFETY DATA SHEET
REVISION DATE : APRIL 2, 2008

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: LHM-5562
PRODUCT DESCRIPTION: HydroShield LITE SEAFOAM GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS (CODE)
HEALTH: (2)
* CAUTION!
* MAY BE HARMFUL IF SWALLOWED OR INHALED
* MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
* MAY CAUSE ALLERGIC SKIN REACTION
* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: (3)
* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: (2)
* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	28 - 38	50 ppm	20 ppm
STYRENE MONOMER [1]	000100-42-5	27	50 ppm	20 ppm
MAGNESIUM SILICATE	014807-96-6	11 - 21	5 mg/m3	2 mg/m3
TITANIA	013463-67-7	3 - 13	15 mg/m3	10 mg/m3
MIXTURE	015625-89-5	1 - 11	N/A	N/A
METHYL METHACRYLATE [1]	000080-62-6	4	100 ppm	100 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

11 NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

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MATERIAL SAFETY DATA SHEET
REVISION DATE : FEBRUARY 6, 2009

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: BP-2145
PRODUCT DESCRIPTION: HydroShield LITE VIKING WHITE GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS (CODE)
HEALTH: (2)
* CAUTION!
* MAY BE HARMFUL IF SWALLOWED OR INHALED
* MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
* MAY CAUSE ALLERGIC SKIN REACTION
* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: (3)
* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: (2)
* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	23 - 33	100 ppm	20 ppm
STYRENE MONOMER [1]	000100-42-5	27	50 ppm	20 ppm
TITANIA	013463-67-7	11 - 21	15 mg/m3	10 mg/m3
MAGNESIUM SILICATE	014807-96-6	10 - 20	5 mg/m3	2 mg/m3
ACRYLIC POLYMER	015625-89-5	1 - 9	N/A	N/A
METHYL METHACRYLATE [1]	000080-62-6	3	100 ppm	100 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

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MATERIAL SAFETY DATA SHEET

INTERPLASTIC CORPORATION
1225 Willow Lake Boulevard
St. Paul, MN 55110-5145
(651) 481-6860

Bob f. nie

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Issue Date:
Revision Date: 06/08/04
MSDS File ID: MSDSLET4
Customer No:
Warehouse No: 003

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name: W-1061-LVL WHITE NPG MARINE GRADE LOW HAP
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid
Shipping Name: Resin Solution, 3, UN1866, PG III

SECTION II - HAZARDOUS COMPONENTS

INGREDIENT	CAS NO.	PERCENT	OSHA-PEL	ACGIH-TL NOTE
Unsaturated Polyester Base Resin	See Index	70-71	None-Estb.	None-Est
Styrene	100-42-5	25-27	50 ppm TWA	50 ppm (1)
METHYL METHACRYLATE	80-62-6	04-05	100 ppm	100 ppm

(1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.

SECTION III - PHYSICAL DATA

PROPERTY	MEASUREMENT
Initial Boiling Point	For Methyl Methacrylate 212 Deg F (100 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Methyl Methacrylate 35 mm Hg 68 Deg F (20 Deg C)
Specific Gravity	1.26-1.32 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1 3.6
Evaporation Rate	Butylacrylate=1 3.1

MSDS no. 14666V1

WHMIS (Canada) B-2 D-2A D-2B	NFPA (USA) Fire Health Reactivity Specific hazard	HMS (USA) Environmental 2 Flammability 3 Physical hazards 1 Personal protection X	Protective clothing
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Section 1. Chemical product and company identification

Trade name	G370LV81423	
Product type	Gel Coat	
Chemical family	Aromatic	
Material uses	Used in the manufacture of thermoset plastic parts.	
Manufacturer	AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri	In case of emergency CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666

Section 2. Hazards identification

OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	<p>Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision.</p> <p>Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis.</p> <p>Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.</p> <p>Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.</p>
Potential chronic health effects	<p>CARCINOGENIC EFFECTS:</p> <p><u>Styrene:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure.</p> <p><u>Titanium Dioxide:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC.</p> <p><u>Talc:</u> Classified A2 (suspected for human) by ACGIH. Classified 1 (proven for human) by IARC. Classified 1 (known) by NTP.</p> <p><u>Methyl Methacrylate:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 3 (not classifiable for human) by IARC.</p> <p><u>Silica, Amorphous:</u> Classified 3 (not classifiable for human) by IARC.</p> <p><u>Cobalt Compounds:</u> Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC.</p> <p>MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database.</p> <p>Other: Prolonged exposure may cause dermatitis. Repeated or prolonged overexposure to near lethal concentrations can produce liver and kidney damage.</p>

Section 3. Composition/Information on Ingredients

Name	CAS #	% by weight
1) Styrene	100-42-5	26.6
2) Titanium Dioxide	13463-67-7	20 - 30
3) Aluminum Hydroxide	21645-51-2	5 - 10
4) Talc	14807-96-6	5 - 10
5) Methyl Methacrylate	80-62-6	3.0
6) Silica, Amorphous	7631-86-9	1 - 5
7) Cobalt Compounds	Mixture	0.1 - 1

Section 4. First aid measures

Eye contact	Flush with a continuous flow of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will aid in removal. Seek medical attention.
Skin contact	Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. If irritation persists, seek medical attention.
Inhalation	Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Ingestion	Do not induce vomiting. Seek immediate medical attention.

Section 5. Fire fighting measures

The product is:	Flammable liquid, Class IC.
Auto-ignition temperature	790°F(421°C) Methyl Methacrylate
Flash point	75 - 89°F (24.8 - 32°C)
Flammable limits	Lower: 0.9% Upper: 12.5%
Products of combustion	May produce carbon monoxide, carbon dioxide, and irritating or toxic vapors, gases or particulate.
Fire hazard	Flammable in the presence of open flames, sparks, or heat.
Explosion hazard	Can react with oxidizing materials. Explosive in the form of vapor when exposed to heat or flame. Material may polymerize when container is exposed to heat (fire) and polymerization will increase pressure in a closed container which may cause the container to rupture violently.
Fire-fighting media and instructions	SMALL FIRE: Use carbon dioxide, foam, dry chemical or water fog to extinguish. LARGE FIRE: Evacuate surrounding areas. Use carbon dioxide, foam, dry chemical or water fog to extinguish. Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Prevent run off to sewers or other water ways.

Section 6. Accidental release measures

Small spill	Absorb with an inert material and place in an appropriate waste disposal container.
Large spill	Stop leak if without risk. Eliminate all ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas.

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MATERIAL SAFETY DATA SHEET

INTERPLASTIC CORPORATION
1225 Willow Lake Boulevard
St. Paul, MN 55110-5145
(651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 05/03/07
Revision Date: 04/27/04
MSDS File ID: MSDSLET4
Customer No:
Warehouse No: 001

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name: NAC COMPU-COLOR GELCOAT
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid
Shipping Name: Resin Solution, 3, UN1866, PG II

SECTION II - HAZARDOUS COMPONENTS

INGREDIENT	CAS NO.	PERCENT	OSHA-PEL	ACGIH-TL	NOTE
Unsaturated Polyester Base Resin	See Index		None-Estb.	None-Est	
Styrene	100-42-5	33-36	50 ppm TWA	50 ppm	(1)
METHYL METHACRYLATE	80-62-6	04-05	100 ppm	100 ppm	

(1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.

SECTION III - PHYSICAL DATA

PROPERTY	MEASUREMENT
Initial Boiling Point	For Methyl Methacrylate 212 Deg F (100 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Methyl Methacrylate 35 mm Hg 68 Deg F (20 Deg C)
Specific Gravity	1.15 - 1.20 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1 3.6
Evaporation Rate	Butylacrylate=1 3.1

2-b

MATERIAL SAFETY DATA SHEET

INTERPLASTIC CORPORATION
1225 Willow Lake Boulevard
St. Paul, MN 55110-5145
(651) 481-6860

CHEMTRED 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 05/03/07
Revision Date: 04/27/04
MSDS File ID: MSDSLET4
Customer No:
Warehouse No: 001

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name: NAC COMPU-COLOR GELCOAT
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid
Shipping Name: Resin Solution, 3, UN1866, PG II

SECTION II - HAZARDOUS COMPONENTS

INGREDIENT	CAS NO.	PERCENT	OSHA-PEL	ACGIH-TL	NOTE
Unsaturated Polyester Base Resin	See Index		None-Estb.	None-Est	
Styrene	100-42-5	33-36	50 ppm TWA	50 ppm	(1)
METHYL METHACRYLATE	80-62-6	04-05	100 ppm	100 ppm	

(1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.

SECTION III - PHYSICAL DATA

PROPERTY	MEASUREMENT
Initial Boiling Point	For Methyl Methacrylate 212 Deg F (100 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Methyl Methacrylate 35 mm Hg 68 Deg F (20 Deg C)
Specific Gravity	1.15 - 1.20 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1 3.6
Evaporation Rate	Butylacrylate=1 3.1

OYSBD094

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MATERIAL SAFETY DATA SHEET
REVISION DATE: FEBRUARY 5, 2008

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

******* PRODUCT IDENTIFICATION *******

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE **PRODUCT CODE:** B-2900
PRODUCT DESCRIPTION: WHITE PATCHING GEL COAT
CHEMICAL FAMILY: NA **DOT CLASS:** FLAMMABLE LIQUID
MOLECULAR FORMULA: NA **DOT SHIP NAME:** RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

******* PRODUCT HAZARD SUMMARY *******

HMIS <CODE>

HEALTH:

<2>

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: **<3>**

- * WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: **<2>**

- * CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: **<--->**

******* IMPORTANT COMPONENTS *******

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
STYRENE MONOMER [1]	000100-42-5	31	50 ppm	20 ppm
UNSATURATED POLYESTER RESIN	MIXTURE	22 - 32	50 ppm	20 ppm
TITANIA	013463-67-7	8 - 18	15 mg/m3	10 mg/m3
MAGNESIUM SILICATE	014807-96-6	7 - 17	5 mg/m3	2 mg/m3
METHYL METHACRYLATE [1]	000080-62-6	8	100 ppm	100 ppm
MIXTURE	015625-89-5	1 - 8	N/A	N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

page 1 of 5



Material Safety Data Sheet

Gel Coat

766W 8183 #14 WHITE

Base

MSDS No.

Not available.

1. Product and Company Identification

Product Trade Name	766W 8183 #14 WHITE	Validation Date	24 January 2002
Synonyms	766W 8183 #14 WHITE 5776W90065 766W 8183 #14 WHITE	Product Code	5776W90065ZF
Chemical Family	Not available.	Internal Code	Not available.
Packaging	Not available.		
Product Type	Not available.		
Product Use	Not available.	Description	#14 WHITE BASE OLD#: 766W8183
Manufactured/ Supplied	VALSPAR - ELKHART 28335 CLAY ST. ELKHART IN 46517 Daytime Phone: 219-522-1062 Emergency Phone: 800-424-9300		

2. Composition and Information on Hazardous Ingredients

Ingredient Name	CAS #	% by Weight	Exposure Limits	Vapor Pressure	LEL-UEL
1) STYRENE MONOMER	100-42-5	30-40	ACGIH (United States, 1994). Skin TWA: 20 ppm ACGIH (United States, 1994). Skin STEL: 40 ppm OSHA (United States, 1989). TWA: 50 ppm OSHA (United States, 1989). STEL: 100 ppm OSHA (United States, 1989). CEIL: 200 ppm NIOSH (United States, 1994). TWA: 50 ppm NIOSH (United States, 1994). STEL: 100 ppm	0.6 kPa (4.5 mmHg) (@ 20°C)	0.9 %
2) METHYL METHACRYLATE	80-62-6	1.5-4	ACGIH (United States, 1996). TWA: 100 ppm OSHA (United States, 1989). TWA: 100 ppm NIOSH (United States, 1994). TWA: 100 ppm	3.9 kPa (29 mmHg) (@ 20°C)	2.1 %
3) TALC	14807-96-6	8-13	ACGIH (United States, 1996). TWA: 2 mg/m ³ OSHA (United States, 1989). Notes: Respirable TWA: 2 mg/m ³ NIOSH (United States, 1994). Notes: Respirable TWA: 2 mg/m ³	Not available.	Not available.
4) HYDROXYLATED SILICON DIOXIDE	112926-00-8	1.5-4	ACGIH (United States,	Not available.	Not available.

OYSBD096

5) TITANIUM DIOXIDE

13483-67-7

13-20

1994).

TWA: 10 mg/m³
OSHA (United States,
1989).TWA: 6 mg/m³
ACGIH (United States,
1996).TWA: 10 mg/m³
OSHA (United States,
1989). Notes: TotalTWA: 10 mg/m³

Not available. Not available.

Note: See section 8 for occupational exposure limits and section 11 for LC50/LD50 information.

3. Hazards Identification

Primary Hazards and Critical Effects

: WARNING!

CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
CARDIOVASCULAR SYSTEM, RESPIRATORY TRACT, EYES, EYE, LENS OR CORNEA.
FLAMMABLE LIQUID AND VAPOR.

VAPOR MAY CAUSE FLASH FIRE.

MAY BE HARMFUL IF INHALED.

MAY CAUSE EYE AND SKIN IRRITATION.

MAY CAUSE ALLERGIC SKIN REACTION.

POSSIBLE CANCER HAZARD

CONTAINS MATERIAL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA.

Risk of cancer depends on duration and level of exposure. Keep away from heat, sparks and flame.

Avoid contact with eyes. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin.

Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Physical/Chemical hazards

: Flammable.

Human Health Hazards

: Harmful by Inhalation.

Irritating to eyes and skin.

Possible risks of irreversible effects.

May cause sensitization by skin contact.

Environmental Hazards

: Not applicable.

4. First Aid Measures

Eye contact

: Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.

Skin contact

: Wash with soap and water. Remove contaminated clothing and shoes. If irritation persists, seek medical attention.

Inhalation

: Remove to fresh air. If not breathing, administer artificial respiration and seek medical attention.

Ingestion

: Wash out mouth with water if person is conscious. Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed by a physician. Seek immediate medical attention.

5. Fire-Fighting Measures

Extinguishing Media

: In case of fire, use water spray (fog), foam, dry chemical, or CO₂. Use foam or all purpose dry chemicals to extinguish.

Fire-Fighting Procedures

: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Fire/Explosion Hazards

: Flammable liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous Decomposition Products

: These products are carbon oxides (CO, CO₂). Some metallic oxides.

2-b

MATERIAL SAFETY DATA SHEET
REVISION DATE : APRIL 23, 2013

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: HD-6615
PRODUCT DESCRIPTION: ICE BLUE GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA PACKING GROUP: PGIII

***** PRODUCT HAZARD SUMMARY *****

HMIS (CODE)
HEALTH: (2)
* CAUTION!
* MAY BE HARMFUL IF SWALLOWED OR INHALED
* MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
* MAY CAUSE ALLERGIC SKIN REACTION
* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: (3)
* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: (2)
* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	29 - 39	100 ppm	20 ppm
STYRENE MONOMER [1]	000100-42-5	29	50 ppm	20 ppm
MAGNESIUM SILICATE	014807-96-6	4 - 14	15 mg/m3	2 mg/m3
ACRYLIC POLYMER	015625-89-5	4 - 14	N/A	N/A
TITANIA	013463-67-7	3 - 13	15 mg/m3	10 mg/m3
METHYL METHACRYLATE [1]	000080-62-6	3	100 ppm	50 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

1) NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

***** PHYSICAL DATA *****

BOILING POINT, °C (°F): 145 (293)
VAPOR PRESSURE, mm Hg: 5 @ 20°C (68°F)
VAPOR DENSITY (AIR=1): 3.6 (styrene)
SOLUBILITY IN WATER: NEGLIGIBLE
SPECIFIC GRAVITY (H2O=1): 1.23 +/- 5% @ 25°C
PERCENT VOLATILE: 32
EVAPORATION RATE (ETHER=1): 1
APPEARANCE/ODOR: BLUE LIQUID WITH PUNGENT ODOR

***** FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT °C (°F): 30-35 (87-95)
FLAMMABILITY CLASSIFICATION: CLASS 1C
AUTOIGNITION TEMPERATURE, °C (°F): 490 (914)
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1
BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

***** PRODUCT HEALTH HAZARD INFORMATION *****

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).



MATERIAL SAFETY DATA SHEET
REVISION DATE: NOVEMBER 14, 2011

HK RESEARCH CORPORATION
PO Box 1809
908 Lenoir Road
Hickory, NC 28603
(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: LHM-2900
PRODUCT DESCRIPTION: HydroShield LITE WHITE GEL COAT
CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA PACKING GROUP PGIII

***** PRODUCT HAZARD SUMMARY *****

HMIS <CODE>
HEALTH: <2>
* CAUTION!
* MAY BE HARMFUL IF SWALLOWED OR INHALED
* MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
* MAY CAUSE ALLERGIC SKIN REACTION
* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: <3>
* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: <2>
* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <---->

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	23 - 33	100 ppm	20 ppm
STYRENE MONOMER [1]	000100-42-5	26	50 ppm	20 ppm
TITANIA	013463-67-7	11 - 21	15 mg/m ³	10 mg/m ³
MAGNESIUM SILICATE	014807-96-6	10 - 20	5 mg/m ³	2 mg/m ³
ACRYLIC POLYMER	015625-89-5	1 - 9	N/A	N/A
METHYL METHACRYLATE [1]	000080-62-6	3	100 ppm	50 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

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***** PHYSICAL DATA *****

BOILING POINT, °C (°F): >145 (293)
VAPOR PRESSURE, mm Hg: <5 @ 20°C (68°F)
VAPOR DENSITY (AIR=1): 3.6 (styrene)
SOLUBILITY IN WATER: NEGLIGIBLE
SPECIFIC GRAVITY (H2O=1): 1.38 +/- 5% @ 25°C
PERCENT VOLATILE: 29
EVAPORATION RATE (ETHER=1): <1
APPEARANCE/ODOR: WHITE LIQUID WITH PUNGENT ODOR

***** FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT °C (°F): 30-35 (87-95)
FLAMMABILITY CLASSIFICATION: CLASS 1C
AUTOIGNITION TEMPERATURE, °C (°F): 490 (914)
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1
BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all-purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

***** PRODUCT HEALTH HAZARD INFORMATION *****

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).



MATERIAL SAFETY DATA SHEET
REVISION DATE: AUGUST 19, 2009

HK RESEARCH CORPORATION

PO Box 1809

908 Lenoir Road

Hickory, NC 28603

(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

***** PRODUCT IDENTIFICATION *****

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: B-4008

PRODUCT DESCRIPTION: RED ISO TOOLING GEL COAT

CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID

MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866

MOLECULAR WEIGHT: NA

***** PRODUCT HAZARD SUMMARY *****

HMIS <CODE>

HEALTH: <2>

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: <3>

- * WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY: <2>

- * CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

***** IMPORTANT COMPONENTS *****

INGREDIENT	CAS #	%	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	43 - 53	50 ppm	50 ppm
STYRENE MONOMER [1]	000100-42-5	45	50 ppm	20 ppm
SILICON DIOXIDE	007631-86-9	1 - 7	20 mppcf	10 mg/m ³
ACRYLIC POLYMER	015625-89-5	1 - 6	N/A	N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS
COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

- [1] NOTE: This chemical subject to reporting requirements under
SARA Title III, Section 313

2-b

MATERIAL SAFETY DATA SHEET

INTERPLASTIC CORPORATION
1225 Willow Lake Boulevard
St. Paul, MN 55110-5145
(651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 05/03/07
Revision Date: 04/27/04
MSDS File ID: MSDSLET4
Customer No:
Warehouse No: 001

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name: NAC COMPU-COLOR GELCOAT
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid
Shipping Name: Resin Solution, 3, UN1866, PG II

SECTION II - HAZARDOUS COMPONENTS

INGREDIENT	CAS NO.	PERCENT	OSHA-PEL	ACGIH-TL NOTE
Unsaturated Polyester Base Resin	See Index		None-Estb.	None-Est
Styrene	100-42-5	33-36	50 ppm TWA	50 ppm (1)
METHYL METHACRYLATE	80-62-6	04-05	100 ppm	100 ppm
(1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.				

SECTION III - PHYSICAL DATA

PROPERTY

MEASUREMENT

Initial Boiling Point	For Methyl Methacrylate	212 Deg F (100 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Methyl Methacrylate	35 mm Hg 68 Deg F (20 Deg C)
Specific Gravity		1.15 - 1.20 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1	3.6
Evaporation Rate	Butylacrylate=1	3.1

MATERIAL SAFETY DATA SHEET

INTERPLASTIC CORPORATION
1225 Willow Lake Boulevard
St. Paul, MN 55110-5145
(651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Revision Date: 06/14/13
MSDS File ID: MSDSLET0
Customer No:
Warehouse No: 0001

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name: COR65-AA-202 ORTHO LAMINATING RESIN
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid

SECTION II - HAZARDOUS COMPONENTS

INGREDIENT	CAS NO.	PERCENT	OSHA-PEL	ACGIH-TL NOTE
Unsaturated Polyester Base Resin	See Index	58.00	None-Estb.	None-Est
Styrene	100-42-5	42.00	50 ppm TWA	50 ppm (1&2)

- (1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.
- (2) HMIS Rating for Styrene: Health=2; Fire=3; Physical Hazard=2

SECTION III - PHYSICAL DATA

PROPERTY	MEASUREMENT
Initial Boiling Point	For Styrene 293.40 Deg F (145.22 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Styrene 4.3 mm Hg 68 Deg F (20 Deg C)
Specific Gravity	1.02-1.14 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1 3.6
Evaporation Rate	Slower than Ether

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MATERIAL SAFETY DATA SHEET

INTERPLASTIC CORPORATION
1225 Willow Lake Boulevard
St. Paul, MN 55110-5145
(651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 06/05/12

Revision Date: 03/23/12

MSDS File ID: MSDSLETO

Customer No:

Warehouse No: 0005

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name: COR65-AA-202 ORTHOPHTHALIC RESIN
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid

SECTION II - HAZARDOUS COMPONENTS

INGREDIENT	CAS NO.	PERCENT	OSHA-PEL	ACGIH-TL NOTE
Unsaturated Polyester Base Resin	See Index	58.00	None-Estb.	None-Est
Styrene	100-42-5	42.00	50 ppm TWA	50 ppm (1&2)

- (1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.
- (2) HMIS Rating for Styrene: Health=2; Fire=3; Physical Hazard=2

SECTION III - PHYSICAL DATA

PROPERTY	MEASUREMENT
Initial Boiling Point	For Styrene 293.40 Deg F (145.22 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Styrene 4.3 mm Hg 68 Deg F (20 Deg C)
Specific Gravity	1.02-1.14 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1 3.6
Evaporation Rate	Slower than Ether

2-b

MATERIAL SAFETY DATA SHEET

INTERPLASTIC CORPORATION
1225 Willow Lake Boulevard
St. Paul, MN 55110-5145
(651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 12/15/10
Revision Date: 12/15/10
MSDS File ID: MSDSLET0
Customer No:
Warehouse No: 0001

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name: COR65-AA-203 ORTHO LAMINATING RESIN
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid

SECTION II - HAZARDOUS COMPONENTS

INGREDIENT	CAS NO.	PERCENT	OSHA-PEL	ACGIH-TL NOTE
Unsaturated Polyester Base Resin	See Index	58.0	None-Estb.	None-Est
Styrene	100-42-5	42.0	50 ppm TWA	50 ppm (1&2)

- (1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.
- (2) HMIS Rating for Styrene: Health=2; Fire=3; Physical Hazard=2

SECTION III - PHYSICAL DATA

PROPERTY	MEASUREMENT
Initial Boiling Point	For Styrene 293.40 Deg F (145.22 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Styrene 4.3 mm Hg 68 Deg F (20 Deg C)
Specific Gravity	1.02-1.14 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1 3.6
Evaporation Rate	Slower than Ether

2-b

MATERIAL SAFETY DATA SHEET

INTERPLASTIC CORPORATION
1225 Willow Lake Boulevard
St. Paul, MN 55110-5145
(651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Revision Date: 01/03/00
Issue Date: 12/26/00
MSDS File ID: MSD04E0
Customer No:
Warehouse No: 001

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name: COR75-AQ-010 CORROSION, ISO RESIN
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid
Shipping Name: Resin Solution (Styrene Monomer), 3, UN1666,
PG III, Marine Pollutant

SECTION II - HAZARDOUS COMPONENTS




INGREDIENT	CAS NO.	PERCENT	OSHA-PEL	ACGIH-TL	NOTE
Unsaturated Polyester Base Resin	See Index	53.0	None-Estb.	None-Est	
Styrene	100-42-5	47.0	50 ppm TWA	50 ppm	(1)

- (1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.

SECTION III - PHYSICAL DATA

PROPERTY	MEASUREMENT
Initial Boiling Point	For Styrene 293.40 Deg F (145.22 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Styrene 4.3 mm Hg 38 Deg F (20 Deg C)
Specific Gravity	1.01-1.30 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1 3.6
Evaporation Rate	Slower than Ether







2-b

WHMIS (Canada)  B-2 D-2A D-2B	NFPA (USA) Fire  Health Reactivity Specific Hazard	HMIS (USA) <table border="1"> <tr><td>Health Hazards</td><td>2</td></tr> <tr><td>Fire Hazard</td><td>3</td></tr> <tr><td>Reactivity</td><td>2</td></tr> <tr><td>Personal Protection</td><td>X</td></tr> </table>	Health Hazards	2	Fire Hazard	3	Reactivity	2	Personal Protection	X	Protective Clothing 
Health Hazards	2										
Fire Hazard	3										
Reactivity	2										
Personal Protection	X										

Section I. Chemical Product and Company Identification			
Trade name	H771-BKB-15	Product Type	Polyester Resin Solution
CAS #	Mixture.	Synonym	None.
Chemical Name	Not applicable.	Chemical Formula	Not applicable.
Chemical Family	Aromatic.		
Material Uses	Used in the manufacture of thermoset plastic parts.		
TSCA	All ingredients are listed or compliant with TSCA.		
DSL	All ingredients are listed or compliant with the NSNR.		
Manufacturer AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Phone Number: (901) 854-2800 8am-5pm (CST) Mon-Fri		In Case of Emergency CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666	

Section II. Information on Hazardous Ingredients		
Name	CAS #	% by Weight
1) styrene	100-42-5	34.0

Section III. Hazards Identification.	
Potential Acute Health Effects Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness. Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin irritant which may result in burning sensation. Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.	
Effective Date: 11/10/2003 Supersedes Date: Not applicable. Page: 1	

<div>WHMIS (Canada)</div> <div></div> <div>B-2 D-2A D-2B</div>	<div>NFPA (USA)</div> <div>Fire</div> <div></div> <div>Health</div> <div>Reactivity</div> <div>Specific hazard</div>	<div>HMIS (USA)</div> <div><table><tr><td>Health hazards</td><td> 2</td></tr><tr><td>Flammability</td><td>3</td></tr><tr><td>Physical hazards</td><td>2</td></tr><tr><td>Personal protection</td><td>X</td></tr></table></div>	Health hazards	 2	Flammability	3	Physical hazards	2	Personal protection	X	<div>Protective clothing</div> <div></div>
Health hazards	 2										
Flammability	3										
Physical hazards	2										
Personal protection	X										

Section 1. Chemical product and company identification

Trade name	R580-CUD-14
Product type	Polyester Resin Solution
Chemical family	Aromatic.
Material uses	Used in the manufacture of thermoset plastic parts.
<p>Manufacturer</p> <p>AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri</p>	<p>In case of emergency</p> <p>CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666</p>

Section 2. Hazards identification

OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	<p>Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision.</p> <p>Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis.</p> <p>Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.</p> <p>Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.</p>
Potential chronic health effects	<p>CARCINOGENIC EFFECTS:</p> <p><u>Styrene:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure.</p> <p><u>Methyl Methacrylate:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 3 (not classifiable for human) by IARC.</p> <p>MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database.</p> <p>Other: Prolonged exposure may cause dermatitis. Repeated or prolonged overexposure to near-lethal concentrations can produce liver and kidney damage.</p>

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Material Safety Data Sheet

1. Chemical Product and Company Identification

Trade Name: Laminating Resin

Chemical Name: Unsaturated Polyester Resin

Product Code: 4510-MVP Class 1 Fire Retardant Low Emission Resin

Manufacturer: Advance Coating Company

Emergency Telephone: (978) 874-5921

Chemtrec 24 Hrs. Emergency 800-424-9300

2. Composition/Information on Ingredients

<u>Component</u>	<u>CAS#</u>	<u>Exposure Limits</u>	<u>% by weight</u>
Polyester Resin	Proprietary	None assigned	68 ± 2%
Styrene Monomer	100-42-5	50.0 ppm ACGIH TWA 100.0 ppm ACGIH STEL	32 ± 2%

3. Hazard Identification

Emergency Overview: **WARNING! Flammable liquid. Causes eye irritation. May cause skin and upper respiratory tract irritation. May cause central nervous system depression. Do not take internally.**

Relevant Routes of Exposure: Inhalation, eye and skin.

Signs and Symptoms of Acute Overexposure:

Exposure to styrene vapors from this product may cause irritation of the eyes, nose, and throat, and headache, nausea or vomiting. Liquid resin is irritating to eyes and skin. The use of respirators and a local exhaust system are mandatory around spray operations. Protective gloves and goggles are recommended when contact with liquid resin by spray or splash is possible. Use with adequate exhaust ventilation.

Signs and Symptoms of Chronic Overexposure:

No known chronic health effects have been observed with normal use of this product.

Potential Health Effects/Health Hazard Identification

Acute Exposure

Eye: Causes Irritation

Skin: Causes Irritation

Ingestion: May cause irritation to the gastrointestinal track

Inhalation: Vapors may cause irritation of mucous membrane.

MATERIAL SAFETY DATA SHEET

Interplastic Corporation
1225 Willow Lake Blvd
Vadnais Heights, MN 55110-5145

24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 01/31/11
Revision Date: 09/07/10
MSDS File id: MSDSLT17
Customer No:
Whse No: 0001

This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard)

SECTION I - Product Identification

Product Name: CORVE8121LH-15 VINYL-ESTER RESIN
UN/NA Number: UN1866
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid

SECTION II - Hazardous Components

Ingredient	Cas No.	Percent	OSHA-PEL	ACGIH-TLV NOTE
Unsaturated Polyester Base Resin	See Index	60-64	None-Estb.	None-Est.
Styrene	100-42-5	30-34	50 ppm TWA	50 ppm (1)
Proprietary Ingredient	xxxxxxxxxx	5.1	100 ppm TWA	50 ppm

(1) OSHA ceiling value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute ceiling.

SECTION III - Physical Data

Property	Measurement
Initial Boiling Point For Styrene	293.40 DEG F @ 760.00 MMHG
Vapor Pressure For Styrene	4.3 MMHG (20.00 DEG C)
Vapor Density Air = 1	3.6
Specific Gravity	1.110 - 1.130 @ 77.00 DEG F (25.00 DEG C)
Percent Non-volatiles	60-64%
Evaporation Rate	Slower than Ether

SECTION IV - Fire and Explosion Data

Flash Point 88 DEG F for Volatile Component

Flammable (Lowest Value of Styrene) Lower - 1.1%
(Upper Value of Styrene) Upper - 6.1%

Extinguishing Media: Aqueous film-forming foam considered most effective, regular foam or carbon dioxide or dry chemical.

Hazardous Decomposition Products: May form toxic materials:, carbon dioxide and carbon monoxide, various hydrocarbons.

Special Firefighting Procedures: Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter, especially if sprayed into containers of hot, burning liquid.

Wear self-contained breathing apparatus with a full face-piece operated in pressure demand or other positive pressure mode when fighting fires.

Unusual Fire & Explosion Hazards: Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point.

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

SECTION V - Health Data

Permissible Exposure Level: Not established for product. See Section II.

Effects of Overexposure: - For Styrene

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

Skin - Prolonged or repeated contact can cause moderate irritation, defatting, dermatitis.

Breathing - Excessive inhalation of vapors can cause nasal irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.

Swallowing - Can cause gastrointestinal irritation, nausea, vomiting, diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis.

First Aid:

If on Skin: Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

If in Eyes: Flush with large amount of water, lifting upper and lower lids occasionally. Get medical attention.

If Swallowed: do not induce vomiting. Keep person warm, quiet and get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

If Breathed: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet, and get medical attention.

SECTION VI - Reactivity Data

Hazardous Polymerization: Can occur.

Stability: Unstable.

Incompatibility: Avoid contact with: strong alkalis, strong mineral acids and oxidizing agents.

Conditions to Avoid: Exposure to excessive heat or open flame; storage in open containers ; prolonged storage (6 months), storage above 38 DEG C (100 DEG F). Contamination with oxidizing agents.

Hazardous Decomposition Products: Carbon Monoxide, Carbon Dioxide, Low Molecular Weight Hydrocarbons, Organic Acids.

SECTION VII - Spill or Leak Procedures

Steps to be Taken in Case Material is Released or Spilled:

Small Spill: Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material and transfer to hood.

Large Spill: Eliminate all ignition sources (flares, flames, including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent or other absorbent material and shoveled into containers.

Waste Disposal Method:

Small Spill: Allow volatile portion to evaporate in hood. Allow sufficient time for vapors to completely clear hood duct work. Dispose of remaining material in accordance with applicable regulations.

Large Spill: Destroy by liquid incineration in accordance with applicable regulations.

Contaminated absorbent should be disposed of in accordance with local, state and federal regulations.

SECTION VIII - Protective Equipment to be Used

Respiratory Protection: If TLV of the product or any component is exceeded, a NIOSH/MSHA jointly approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators under specified conditions. (See your safety equipment supplier.) Engineering or administrative controls should be implemented to reduce exposure.

Ventilation: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Protective Gloves: Wear resistant gloves such as: neoprene, nitrile rubber.

Eye Protection: Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses (consult your safety equipment supplier).

Other Protective Equipment: Normal work clothing covering arms and legs.

SECTION IX - Special Precautions or Other Comments

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapors, liquid, and/or solid), all hazard precautions given in this data sheet must be observed.

Overexposure to styrene has apparently been found to cause the following effects in laboratory animals: liver abnormalities, kidney damage, and lung damage.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with Interplastic or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

SECTION X - Supplement

Styrene has been identified as a possible human carcinogen by the International Agency for Research on Cancer (IARC). The IARC determination is based on "limited evidence" in animals and other "relevant data." IARC concedes there is "inadequate evidence" on humans for its findings.

The significance of these results for humans has not been established. Styrene is not expected to cause cancer in humans at concentrations below the recommended exposure standard or when appropriate industrial hygiene procedures are followed. Moreover, studies in humans exposed for long periods of time to styrene have not demonstrated any carcinogenic effects.

At the conclusion of a major notice and comment rulemaking revising its air contaminants regulations, OSHA concluded that the "current evidence on styrene's carcinogenicity does not support its classification in the final rule as a carcinogen." In the same rulemaking, the National Institute for Occupational Safety and Health (NIOSH) commented that there "seems to be little basis from experimental animal investigations or epidemiologic studies to conclude at this time that styrene is carcinogenic." The National Toxicology Program does not include styrene on its list of chemicals expected to be carcinogenic.




SECTION XI - Supplier Notification

This product has been formulated with a proprietary ingredient to reduce the "Hazardous Air Pollutant Content" required to be reported under the "Emergency Planning & Community Right to Know Act (EPCRA) & section 112(r) of the Clean Air Act". Please refer to Section II of this MSDS for the percent content of the product that still requires reporting under "EPCRA & section 112(r) of the Clean Air Act".

BASE RESIN CAS INDEX

The base resins indicated under Section II are identified by one or more of the following CAS numbers:

113060-15-4	28572-30-7	58182-50-6	67859-89-6
135108-89-3	28679-80-3	61224-63-3	49624-93-3
141224-31-9	29011-83-4	62569-28-2	68511-26-2
14807-96-6	29350-58-1	64386-66-9	79-4-1
149717-53-3	29403-69-8	67380-21-6	
155122-62-6	29403-69-8	67386-67-0	
21645-51-2	30110-00-0	67599-39-7	
25037-66-5	30946-90-8	67712-08-7	
25101-03-5	31260-98-7	67845-68-5	
25215-72-9	31472-46-5	67939-08-6	
25464-21-5	32505-78-5	67939-40-6	
25609-89-6	32677-47-7	68002-44-8	
25749-46-6	32762-75-7	68140-84-1	
25749-49-9	36346-15-3	68140-88-5	
25987-82-0	36425-15-7	68171-28-8	
26098-37-3	36425-16-8	68238-98-2	
26123-45-5	37339-47-2	68299-40-1	
26265-08-7	37347-86-7	68492-68-2	
26301-26-8	37999-57-8	68511-26-2	
26588-55-6	42133-45-9	68585-94-4	
26795-76-6	464920-01-2	68647-07-4	
27342-37-6	52453-94-8	72259-64-4	
27837-75-8	54228-09-0	81192-92-9	
27863-48-6	56083-98-8	9003-20-7	
28472-89-1	56083-99-9	9065-68-3	
28516-30-5	57863-48-6	37625-93-7	

<div>WHMIS (Canada)</div> <div></div> <div>B-2 D-2A D-2B</div>	<div>NFPA (USA)</div> <div><div>Fire</div><div>Health</div><div>Reactivity</div><div>Specific hazard</div><div></div></div>	<div>HMIS (USA)</div> <div><table><tr><td>Health hazards</td><td>2</td></tr><tr><td>Fire hazard</td><td>3</td></tr><tr><td>Reactivity</td><td>1</td></tr><tr><td>Personal protection</td><td>X</td></tr></table></div>	Health hazards	2	Fire hazard	3	Reactivity	1	Personal protection	X	<div>Protective clothing</div> <div></div>
Health hazards	2										
Fire hazard	3										
Reactivity	1										
Personal protection	X										

Section I. Chemical Product and Company Identification

Trade name	R015-AAG-00	Product type	Vinyl Ester Resin
CAS #	Not applicable.	Synonym	None.
Chemical name	Not applicable.	Chemical formula	Not applicable.
Chemical family	Aromatic.		
Material uses	Used in the manufacture of thermoset plastic parts.		
TSCA	All ingredients are listed or compliant with TSCA.		
DSL	All ingredients are listed or compliant with the NSNR.		
Manufacturer AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Phone Number: (901) 854-2800 8am-5pm (CST) Mon-Fri		In case of emergency CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666	




Section II. Information on Hazardous Ingredients

Name	CAS #	% by weight
1) Styrene	100-42-5	37.0

Section III. Hazards Identification.

Potential acute health effects	Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness. Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin irritant which may result in burning sensation. Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.
Potential chronic health effects	<p>CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic. Lung effects have been observed in mouse studies following repeated exposure.</p> <p>MUTAGENIC EFFECTS Not available.</p> <p>TERATOGENIC EFFECTS Not available.</p> <p>Skin effects: Prolonged exposure may cause dermatitis.</p>

MSDS No. 11356V2

<div>WHMIS (Canada)</div> <div></div> <div>B-2 D-2A D-2B</div>	<div>NFPA (USA)</div> <div>Fire</div> <div></div> <div>Health Reactivity</div> <div>Specific hazard</div>	<div>HMIS (USA)</div> <table><tr><td>Health hazards</td><td>2</td></tr><tr><td>Fire hazard</td><td>3</td></tr><tr><td>Reactivity</td><td>1</td></tr><tr><td>Personal protection</td><td>X</td></tr></table>	Health hazards	2	Fire hazard	3	Reactivity	1	Personal protection	X	<div>Protective Clothing</div> <div></div>
Health hazards	2										
Fire hazard	3										
Reactivity	1										
Personal protection	X										

Section I. Chemical Product and Company Identification

Trade name	H541-AFB-20	Product type	Polyester Resin Solution
CAS #	Mixture.	Synonym	None.
Chemical name	Not applicable.	Chemical formula	Not applicable.
Chemical family	Aromatic.		
Material uses	Used in the manufacture of thermoset plastic parts.		
TSCA	All ingredients are listed or compliant with TSCA.		
DSL	All ingredients are listed or compliant with the NSNR.		
<u>Manufacturer</u>	<u>In case of emergency</u>		
AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Phone Number: (901) 854-2800 8am-5pm (CST) Mon-Fri		CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666	

Section II. Information on Hazardous Ingredients

Name	CAS #	% by weight
1) Styrene	100-42-5	35.0

Section III. Hazards Identification.

Potential acute health effects

Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness. Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin irritant which may result in burning sensation. Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.

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Material Safety Data Sheet

For U.S. Only

MSDS no. 11356V4





WHMIS (Canada) B-2 D-2A D-2B	NFPA (USA) Health Fire Reactivity Specific hazard	HMS (USA) Health hazards 2 Flammability 3 Personal protection 1 (X)	Protective clothing
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Section 1. Chemical product and company identification	
Trade name	H541-AFB-20
Product type	Polyester Resin Solution
Chemical family	Aromatic
Material uses	Used in the manufacture of thermoset plastic parts.
Manufacturer	AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri
In case of emergency	CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666

Section 2. Hazards Identification	
OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	<p>Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision.</p> <p>Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis.</p> <p>Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.</p> <p>Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.</p>
Potential chronic health effects	<p>CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure.</p> <p>MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database.</p>

Section 3. Composition/information on Ingredients		
Name	CAS #	% by weight
1) Styrene	100-42-5	34.0

MSDS no. 2289V5

WHMIS (Canada)  B-2 D-2A D-2B	NFPA (USA) Fire  Health Reactivity Specific hazard	HMIS (USA) Health hazards Flammability Personal protection 	Protective clothing 
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Section 1. Chemical product and company identification

Trade name	H520-CKA-20
Product type	Polyester Resin Solution
Chemical family	Aromatic.
Material uses	Used in the manufacture of thermoset plastic parts.
Manufacturer	AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri
In case of emergency	CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666

Section 2. Hazards identification

OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.
Potential chronic health effects	CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. Silica, Amorphous: Classified 3 (not classifiable for human) by IARC. Cobalt Compounds: Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database.

Section 3. Composition/information on ingredients

Name	CAS #	% by weight
1) Styrene	100-42-5	44.0
2) Silica, Amorphous	7631-86-9	1 - 5
3) Cobalt Compounds	Mixture	0.1 - 1

ASHLAND
SAFETY DATA SHEET

AROPOL™ LB 6029-74 RESIN
137770

2-b
Page: 1
Revision Date: 01/24/2008
Print Date: 4/30/2009
MSDS Number: R0349999
Version: 1.2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone	1-800-ASHLAND (1-800-274-5263)

Product name	AROPOL™ LB 6029-74 RESIN
Product code	137770
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid,, dark blue

WARNING! FLAMMABLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY BE HARMFUL IF INHALED OR SWALLOWED. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN, CAUSE IRRITATION AND BURNS.

Potential Health Effects

Routes of exposure

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Ingestion

ASHLAND

SAFETY DATA SHEET

AROPOL™ LB 6029-74 RESIN
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MSDS Number: R0349999
Version: 1.2

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions), liver, central nervous system, male reproductive system, auditory system

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, loss of coordination, confusion, liver damage

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible kidney effects, effects on hearing, respiratory tract damage (nose, throat, and airways), testis damage, liver damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: mild effects on color vision, effects on hearing, respiratory tract damage (nose, throat, and airways), central nervous system effects

Carcinogenicity

Dimethylaniline has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. Dimethylaniline is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). There was no increase in cancer in rats exposed to styrene by inhalation. However, there was an increase in lung cancer in styrene-exposed mice. The relevance of the mouse lung cancer to humans is uncertain. Styrene did not cause cancer in mice in

ASHLAND

SAFETY DATA SHEET

AROPOL™ LB 6029-74 RESIN
137770

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Page: 3
Revision Date: 01/24/2008
Print Date: 4/30/2009
MSDS Number: R0349999
Version: 1.2

studies in which the chemical was placed in the stomachs through a feeding tube, or in a study in which styrene was given by injection. Epidemiological studies do not provide a basis for concluding that styrene causes cancer. Styrene is listed as a possible human carcinogen by the International Agency for Research on Cancer (IARC).

Reproductive hazard

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
STYRENE	100-42-5	>=40-<50%
DIMETHYLANILINE	121-69-7	>=0.1-<0.5%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

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MATERIAL SAFETY DATA SHEET

Ashland

Page 001

Date Prepared: 10/31/01

Date Printed: 11/01/01

MSDS No: 304.0376434-001.002

AROPOL Q 81301 T 13 RESIN

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: AROPOL Q 81301 T 13 RESIN

General or Generic ID: UNSATURATED POLYESTER RESIN ✓

Company

Ashland
Ashland Distribution Co. &
Ashland Specialty Chemical Co.
P. O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:

1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
POLYESTER RESIN	Trade Secret	65.0- 69.0
STYRENE	100-42-5	32.0- 32.0
COBALT COMPOUNDS		0.1- 0.1

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Continued on next page

OYSBD123

MATERIAL SAFETY DATA SHEET

Ashland

Page 001

Date Prepared: 03/28/00

Date Printed: 10/03/02

MSDS No: 304.0361592-001.001

M 625-2

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: **M 625-2 GENAOL PVALOSE**

General or Generic ID: **UNSATURATED POLYESTER RESIN**

Company

Ashland
Ashland Distribution Co. &
Ashland Specialty Chemical Co.
P. O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:

1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
POLYESTER RESIN	Trade Secret	53.0- 57.0
STYRENE	100-42-5	44.0- 44.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Continued on next page

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MATERIAL SAFETY DATA SHEET

Ashland

Page 001
Date Prepared: 03/03/05
Date Printed: 02/24/06
MSDS No: 304.0340429-001.005

MODIFIER C 10

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: MODIFIER C 10

Product Code: 501478

General or Generic ID: UNSATURATED POLYESTER RESIN

Company

Ashland
Ashland Distribution Co. &
Ashland Specialty Chemical Co.
P. O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:

1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
STYRENE	100-42-5	90.0
PARAFFIN WAX		7.0- 12.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Continued on next page

OYSBD125

MATERIAL SAFETY DATA SHEET

Interplastic Corporation
1225 Willow Lake Blvd
Vadnais Heights, MN 55110-5145

24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 09/11/08
Revision Date: 08/08/08
MSDS File id: MSDSLT17
Customer No:
Whse No: 0002

This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard)

SECTION I - Product Identification

Product Name: MVR8031LH-15 MODIFIED VINYL ESTER RESIN
UN/NA Number: UN1866
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid

SECTION II - Hazardous Components

Ingredient	Cas No.	Percent	OSHA-PEL	ACGIH-TLV NOTE
Unsaturated Polyester Base Resin	See Index	62-66	None-Estb.	None-Est.
Styrene	100-42-5	31-34	50 ppm TWA	50 ppm (1)
Proprietary Ingredient	XXXXXXXXXX	3.0	100 ppm TWA	50 ppm

(1) OSHA ceiling value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute ceiling.

SECTION III - Physical Data

Property	Measurement
Initial Boiling Point	For Styrene 293.40 DEG F @ 760.00 MMHG
Vapor Pressure	For Styrene 4.3 MMHG (20.00 DEG C)
Vapor Density	Air = 1 3.6
Specific Gravity	1.110 - 1.130 @ 77.00 DEG F (25.00 DEG C)
Percent Non-volatiles	62-66%
Evaporation Rate	Slower than Ether

MATERIAL SAFETY DATA SHEET

Interplastic Corporation
1225 Willow Lake Blvd
Vadnais Heights, MN 55110-5145

24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 09/11/08

Revision Date: 08/08/08

MSDS File id: MSDSLT17

Customer No:

Whse No: 0002

This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard)

SECTION I - Product Identification

Product Name: MVR8031LH-15 MODIFIED VINYL ESTER RESIN
UN/NA Number: UN1866
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid

SECTION II - Hazardous Components

Ingredient	Cas No.	Percent	OSHA-PEL	ACGIH-TLV NOTE
Unsaturated Polyester Base Resin	See Index	62-66	None-Estb.	None-Est.
Styrene	100-42-5	31-34	50 ppm TWA	50 ppm (1)
Proprietary Ingredient	xxxxxxxxxx	3.0	100 ppm TWA	50 ppm

(1) OSHA ceiling value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute ceiling.

SECTION III - Physical Data

Property	Measurement
Initial Boiling Point For Styrene	293.40 DEG F @ 760.00 MMHG
Vapor Pressure For Styrene	4.3 MMHG (20.00 DEG C)
Vapor Density Air = 1	3.6
Specific Gravity	1.110 - 1.130 @ 77.00 DEG F (25.00 DEG C)
Percent Non-volatiles	62-66%
Evaporation Rate	Slower than Ether

2-b

MATERIAL SAFETY DATA SHEET

Interplastic Corporation
1225 Willow Lake Blvd
Vadnais Heights, MN 55110-5145

24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Issue Date:
Revision Date: 01/27/04
MSDS File id: MSDSLT17
Customer No:
Whse No: 005

This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard)

SECTION I - Product Identification

Product Name: MVR8031LH-15
UN/NA Number: UN1866
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid

SECTION II - Hazardous Components

Ingredient	Cas No.	Percent	OSHA-PEL	ACGIH-TLV NOTE
Unsaturated Polyester Base Resin	See Index		None-Estb.	None-Est.
Styrene	100-42-5	32-35	50 ppm TWA	50 ppm (1)
Proprietary Ingredient	XXXXXXXXXX	4.0	100 ppm TWA	50 ppm
(1) OSHA ceiling value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute ceiling.				

SECTION III - Physical Data

Property		Measurement
Initial Boiling Point	For Styrene	293.40 DEG F @ 760.00 MMHG
Vapor Pressure	For Styrene	4.3 MMHG (20.00 DEG C)
Vapor Density	Air = 1	3.6
Specific Gravity		1.110 - 1.130 @ 77.00 DEG F (25.00 DEG C)
Percent Non-volatiles		
Evaporation Rate		Slower than Ether

MATERIAL SAFETY DATA SHEET

INTERPLASTIC CORPORATION
1225 Willow Lake Boulevard
St. Paul, MN 55110-5145
(651) 481-6860

2-b

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 03/30/09

Revision Date: 08/08/08

MSDS File ID: MSDSLET0

Customer No:

Warehouse No: 0022

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name: SIL66BQ-249A SURFBOARD RESIN
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid
Shipping Name: Resin Solution, 3, UN1866, PG III

SECTION II - HAZARDOUS COMPONENTS

INGREDIENT	CAS NO.	PERCENT	OSHA-PEL	ACGIH-TL NOTE
Unsaturated Polyester Base Resin	See Index	61-64	None-Estb.	None-Est
Styrene	100-42-5	37.3	50 ppm TWA	50 ppm (1)

(1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.

SECTION III - PHYSICAL DATA

PROPERTY	MEASUREMENT
Initial Boiling Point	For Styrene 293.40 Deg F (145.22 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Styrene 4.3 mm Hg 68 Deg F (20 Deg C)
Specific Gravity	1.0-1.2 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1 3.6
Evaporation Rate	Slower than Ether

2-b

Material Safety Data Sheet

1. Chemical Product and Company Identification

Trade Name: **Pigment Dispersion**

Chemical Name: **Unsaturated Polyester Resin**

Synonyms:

Product Code: **A-802 Black**

Use:

Manufacturer: **Advance Coating Company**

Emergency Telephone: (978) 874-5921

2. Composition/Information on Ingredients

<u>Component</u>	<u>CAS#</u>	<u>Exposure Limits</u>	<u>% by weight</u>
Polyester Resin	61224-63-3	None Established	80
2-Ethylhexanol	104-76-7	None Established	20

Component

EINECS#

RTECS#

3. Hazard Identification

Emergency Overview: WARNING! Combustible liquid. Causes eye irritation. May cause skin and upper respiratory tract irritation. May cause central nervous system depression. Aspiration hazard.

Relevant Routes of Exposure: Inhalation, eye and skin.

Signs and Symptoms of Acute Overexposure:

The low vapor pressure of this product suggests a low inhalation hazard potential at room temperature. However, heating or misting of 2EH may cause vapors that irritate the upper respiratory tract if inhaled. Symptoms may include burning sensation of the eyes, nose and throat and coughing. Inhalation of high vapor concentrations may cause headache, dizziness, nausea, anesthesia and Central Nervous System (CNS) depression. Contact with skin may cause irritation. Symptoms may include redness, dryness, burning and itching. Direct eye contact may cause severe irritation to the eyes causing burning, redness, tearing, pain and swelling of eye and surrounding tissue. Contact with vapors may cause a stinging sensation to the eyes. If swallowed, may cause nausea, vomiting, diarrhea, CNS depression and other gastric disturbances. Possible aspiration hazard. Aspiration of 2EH into the lungs may cause chemical pneumonia which may be life threatening.

2-b

Ashland

Page 001
Date Prepared: 09/28/01
Date Printed: 02/16/02
MSDS No: 304.0128151-008.011

HETRON 625 P**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****Material Identity**

Product Name: **HETRON 625 P** *FIRE RETARDANT*
Product Code: 563563
General or Generic ID: **UNSATURATED POLYESTER RESIN**

Company

Ashland
Ashland Distribution Co. &
Ashland Specialty Chemical Co.
P. O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:
1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
POLYESTER RESIN	Trade Secret	62.0- 67.0
STYRENE	100-42-5	34.0

3. HAZARDS IDENTIFICATION**Potential Health Effects****Eye**

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Swallowing








Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Continued on next page

MSDS no. 14836V2

<div>WHMIS (Canada)</div> <div></div> <div>B-2 D-2A D-2B</div>	<div>NFPA (USA)</div> <div><div>Fire</div><div>Health</div><div>Reactivity</div><div>Specific hazard</div></div> <div></div>	<div>HMIS (USA)</div> <div><table><tr><td>Health hazards</td><td> 2</td></tr><tr><td>Flammability</td><td>3</td></tr><tr><td>Personal protection</td><td>1</td></tr></table><div>Personal protection </div></div>	Health hazards	 2	Flammability	3	Personal protection	1	<div>Protective clothing</div> <div></div>
Health hazards	 2								
Flammability	3								
Personal protection	1								

Section 1. Chemical product and company identification	
Trade name	K130-PTJ-15
Product type	Polyester Resin Solution - Halogenated
Chemical family	Halogenated
Material uses	Fire Retardant Resin
Manufacturer AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri	In case of emergency CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666

Section 2. Hazards Identification	
OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.
Potential chronic health effects	CARCINOGENIC EFFECTS: <u>Styrene:</u> Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. <u>Cobalt Compounds:</u> Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database.

Section 3. Composition/information on ingredients		
Name	CAS #	% by weight
1) Styrene	100-42-5	32.5
2) Triethyl Phosphate	78-40-0	1 - 5
3) Cobalt Compounds	Mixture	0.1 - 1



Lilly Industries, Inc.

2-6
Material Safety Data Sheet

HI-HIDE RED TOOLING

MSDS No.

Not availat

1. Product and Company Identification

Product Trade Name	HI-HIDE RED TOOLING	Validation Date	23 March 2001
Synonyms	HI-HIDE RED TOOLING 5783R90015 HI-HIDE RED TOOLING	Product Code	5783R90015
Chemical Family	Not available.	Internal Code	Not available.
Packaging	Not available.		
Product Type	Not available.		
Product Use	Not available.	Description	GC HI HIDE LF ID TLNG
Manufactured/ Supplied	VALSPAR - ELKHART 28335 CLAY ST. ELKHART IN 46517 Daytime Phone: 219-522-1052 Emergency Phone: 800-424-9300		

2. Composition and Information on Hazardous Ingredients

Ingredient Name	CAS #	% by Weight	Exposure Limits	Vapor Pressure	LEL-UE
1) STYRENE MONOMER	100-42-5	40-50	ACGIH (United States, 1994). Skin TWA: 20 ppm ACGIH (United States, 1994). Skin STEL: 40 ppm OSHA (United States, 1989). TWA: 50 ppm OSHA (United States, 1989). STEL: 100 ppm OSHA (United States, 1989). CEIL: 200 ppm NIOSH (United States, 1994). TWA: 50 ppm NIOSH (United States, 1994). STEL: 100 ppm	1.3 kPa (9.5 mmHg) (@ 20°C)	Not availal
2) METHYL METHACRYLATE	80-02-6	1.5-4	ACGIH (United States, 1994). TWA: 100 ppm OSHA (United States, 1989). TWA: 100 ppm NIOSH (United States, 1994). TWA: 100 ppm NIOSH (United States, 1994).	3.9 kPa (29 mmHg) (@ 20°C)	Not availal
3) AMORPHOUS SILICA	7631-88-9	1.5-4	NIOSH (United States, 1994). TWA: 6 mg/m ³	Not available.	Not availat
4) HYDRATED ALUMINA	21645-51-2	1.5-4	ACGIH (United States, 1994). TWA: 2 mg/m ³	Not available.	Not availat
5) TITANIUM DIOXIDE	13463-67-7	0-1	ACGIH (United States, 1994). TWA: 10 mg/m ³ OSHA (United States,	Not available.	Not availat

HI-HIDE RED TOOLING

Page: 2/6

6) CYCLOHEXANONE	108-94-1	0-1	1989). Notes: Total TWA: 10 mg/m ³ ACGIH (United States, 1986). Skin TWA: 25 ppm OSHA (United States, 1989). Skin TWA: 25 ppm NIOSH (United States, 1994). Skin TWA: 25 ppm NIOSH (United States, 1994). Skin TWA: 25 ppm	0.3 kPa (2 mmHg) (@ 20°C)	Not available
7) TRIMETHYLBENZENE, 1,2,4 ISOMER	96-63-6	0-1	TWA: 25 ppm NIOSH (United States, 1994). Skin TWA: 25 ppm	0.6 kPa (4.5 mmHg) (@ 20°C)	Not available

Notes: See section 6 for occupational exposure limits and section 11 for LC50/LD50 information.

3. Hazards Identification**Primary Hazards and Critical Effects**

- WARNING!**
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: LUNGS, LI SKIN, EYES, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.
FLAMMABLE LIQUID AND VAPOR.
VAPOR MAY CAUSE FLASH FIRE.
MAY BE HARMFUL IF INHALED.
MAY CAUSE EYE AND SKIN IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
POSSIBLE CANCER HAZARD
CONTAINS MATERIAL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA.
Risk of cancer depends on duration and level of exposure. Keep away from heat, sparks and flame.
Avoid contact with eyes. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with.
Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Physical/Chemical hazards

- Flammable.

Human Health Hazards

- Harmful by inhalation.
Irritating to eyes and skin.
Possible risks of irreversible effects.
May cause sensitization by skin contact.

Environmental Hazards

- Not applicable.

4. First Aid Measures

- Eye contact**: Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eye. Irritation persists, seek medical attention.
- Skin contact**: Wash with soap and water. Remove contaminated clothing and shoes. If irritation persists, seek medical attention.
- Inhalation**: Remove to fresh air. If not breathing, administer artificial respiration and seek medical attention.
- Ingestion**: Wash out mouth with water if person is conscious. Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed by a physician. Seek immediate medical attention.

5. Fire-Fighting Measures

- Extinguishing Media**: In case of fire, use water spray (fog), foam, dry chemical, or CO₂. Use foam or all purpose dry ch to extinguish.
- Fire-Fighting Procedures**: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full gear.
- Fire/Explosion Hazards**: Flammable liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or cc areas, travel considerable distance to source of ignition and flash back. Runoff to sewer may create explosion hazard.
- Hazardous Decomposition Products**: These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...), sulfur oxides (SO₂, S Some metallic oxides.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NJDA87092391	2. Page 1 of 1	3. Emergency Response Phone (977) 577-2669	4. Manifest Tracking Number 006483084 FLE		
5. Generator's Name and Mailing Address Ocean Yacht 2713 GREEN BANK ROAD Generator's Phone: E60 HARBOR CITY NJ 08215 (609)965-4016				Generator's Site Address (if different than mailing address) Ocean Yacht 2713 GREEN BANK ROAD E60 HARBOR CITY NJ 08215 (609)965-4016			
6. Transporter 1 Company Name REPUBLIC ENV SYS (TRANS GROUP) LLC				U.S. EPA ID Number PA0982661301			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address REPUBLIC ENV SYS (PA) LLC 2869 SANDSTONE DRIVE Facility's Phone: MATFIELD, PA 15440 (215) 622-8995				U.S. EPA ID Number PA0085690592			
GENERATOR	9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers	11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes	
			No. Type				
	X	1. UN1993 HASTE FLAMMABLE LIQUIDS, N.O.S. (DOMESTIC, ACETONE) 3 PG11 RQ(100)	2 DM	400	P	0401	F003
		2. HCN-DOT/HDH-RCRA REGULATED LIQUID (USED OIL)	3 DM	1000	P		
		3.					
		4.					
14. Special Handling Instructions and Additional Information (1) 439309-01 -- ER0(120) HASTE FLAMMABLE LIQU (2) 439308-01 -- USED OIL							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offor's Printed/Typed Name A. Robert C. Phillips				Signature [Signature]		Month Day Year 10/16/13	
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name Robert P. [Signature]				Signature [Signature]		Month Day Year 10/16/13
	Transporter 2 Printed/Typed Name				Signature		Month Day Year
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number:						
	Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month Day Year						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H141		2. H141		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a							
Printed/Typed Name MALVEY DIMITA				Signature [Signature]		Month Day Year 10/25/13	

062580

1407979

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NJ0087092391	2. Page 1 of 2	3. Emergency Response Phone (877) 577-2669	4. Manifest Tracking Number 005083168 FLE		
5. Generator's Name and Mailing Address Ocean Yacht RTE 563 Milepost 23 NEEKSTON NJ 08215 (609)965-4016				Generator's Site Address (if different than mailing address) Ocean Yacht RTE 563 Milepost 23 NEEKSTON NJ 08215 (609)965-4016			
6. Transporter 1 Company Name REPUBLIC ENV SYS (TRANS GROUP) LLC				U.S. EPA ID Number PAD982661381			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address REPUBLIC ENV SYS (PA) LLC 2663 SANDSTONE DRIVE HATFIELD, PA 19440 (215) 822-8995				U.S. EPA ID Number PAD085690592			
Facility's Phone:							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt/Vol.	13. Waste Codes
		1. NON-001/RUN FLKA REGULATED MATERIAL (NON-REG PAINT)	007	DF	00250	P	
		2. UN1263 WASTE PAINT RELATED MATERIAL 3 PAIL 100	006	DM	00200	P	0001 F003 F005
		3. UN1333 WASTE ADHESIVES (METHYL ETHYL KETONE) 3 PAIL 100	001	DF	00040	P	0001 F003 F005
		4. UN1593 WASTE DICHLOROMETHANE 6.1 PAIL	002	DM	00060	P	1001
14. Special Handling Instructions and Additional Information (1) 519263-00 - NON-HAZARDOUS PAINT (2) 519266-00 - ERG(126) PAINT THINNER (3) 519267-00 - ERG(128) ADHESIVES / EPOXY (4) 519279-00 - ERG(160) PAINT STRIPPER 1) 7x5 2) 6x5 3) 1x5 4) 2x5 T 200 6PH5814							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offor's Printed/Typed Name X Robert Phillips				Signature X [Signature]		Month Day Year 11/2/11	
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name GARY F. TOBIN		Signature [Signature]		Month Day Year 11/2/11		
	Transporter 2 Printed/Typed Name		Signature		Month Day Year		
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	Manifest Reference Number:						
	18b. Alternate Facility (or Generator) U.S. EPA ID Number						
	Facility's Phone:						
	18c. Signature of Alternate Facility (or Generator)						Month Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H111		2. H141		3. H141		4. H141	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name Deanna M. [Signature]				Signature [Signature]		Month Day Year 11/2/11	

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2-b

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NJ00087092391	2. Page 1 of 1	3. Emergency Response Phone (877) 577-2669	4. Manifest Tracking Number 004151869 FLE		
5. Generator's Name and Mailing Address Ocean Yacht RTE 563 Milepost 23 WEEKSTOWN NJ 08215 (609)965-4016				Generator's Site Address (if different than mailing address) Ocean Yacht RTE 563 Milepost 23 WEEKSTOWN NJ 08215 (609)965-4016			
6. Transporter 1 Company Name REPUBLIC ENV SYS (TRANS GROUP) LLC				U.S. EPA ID Number PA0902661381			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address REPUBLIC ENV SYS (PA) LLC 2869 SANDSTONE DRIVE Facility's Phone: HATFIELD, PA 19340 (215) 822-8997				U.S. EPA ID Number PA085630532			
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		1. NON-DOT/NGH-RCRA REGULATED LIQUID (USED OIL)	No.	Type			
		2. UN1993 WASTE FLAMMABLE LIQUIDS, N.O.S. (ADHESIVE, ACETONE) 3 PGII RQ(100)	XXX	DM	XXXXX	P	
		3. UN1203 WASTE GASOLINE (BENZENE) 3 PGII RQ(10)	XX4	DM	X1600	P	D001 F003
		4.	XX2	DM	XX600	P	D001 D018
14. Special Handling Instructions and Additional Information W-133000-00 - USED OIL (2) 439389-00 - ER6(120) WASTE FLAMMABLE LIQU (3) 439760-00 - ER6(120) GASOLINE /WATER							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offor's Printed/Typed Name Robert Phillips				Signature <i>[Signature]</i>		Month Day Year 10/10/11	
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name Roger S. Field				Signature <i>[Signature]</i>		Month Day Year 10/10/11
	Transporter 2 Printed/Typed Name				Signature		Month Day Year
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number						
	Facility's Phone:						
	18c. Signature of Alternate Facility (or Generator) Month Day Year						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H141		2. H141		3. H141		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item-18a							
Printed/Typed Name Paul Carroll				Signature <i>[Signature]</i>		Month Day Year 11/10/11	

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2-b

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NJD087092391	2. Page 1 of 1	3. Emergency Response Phone (877) 577-2669	4. Manifest Tracking Number 003196714 FLE		
5. Generator's Name and Mailing Address Ocean Yacht RTE 563 Milepost 23 HEEKSTOWN NJ 08215 (609)965-4016			Generator's Site Address (if different than mailing address) Ocean Yacht RTE 563 Milepost 23 HEEKSTOWN NJ 08215 (609)965-4016				
6. Transporter 1 Company Name REPUBLIC ENV SYS (TRANS GROUP) LLC			U.S. EPA ID Number PAD982661381				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address REPUBLIC ENV SYS (PA) LLC 2869 SANDSTONE DRIVE HATFIELD, PA 19440 (215) 822-8995			U.S. EPA ID Number PAD085620592				
Facility's Phone:							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
			No.	Type			
		1. RDH-0017/RDH-ACRA REGULATED LIQUID (USED OIL)	3	DM	1200	P	
		2. UN1993 WASTE FLAMMABLE LIQUIDS, N.O.S. (ADHESIVE, ACETONE) 3 PG11 RQ(100)	4	DM	1600	P	0001 1002
		3. UN1203 WASTE GASOLINE (BENZENE) 3 PG11 RQ(10)	1	DM	400	P	0001 0018
	4.						
14. Special Handling Instructions and Additional Information (1) 439388-00 - USED OIL (2) 439389-00 - ER6(120) WASTE FLAMMABLE LIQU (3) 439760-00 - ER6(120) GASOLINE /WATER							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 282.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offor's Printed/Typed Name A Lewis Gorman			Signature <i>[Signature]</i>			Month Day Year 10/3/04/10	
TRANSPORTER INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name Eric Dorian			Signature <i>[Signature]</i>			Month Day Year 10/3/04/10
	Transporter 2 Printed/Typed Name			Signature			Month Day Year
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	Manifest Reference Number: _____						
	18b. Alternate Facility (or Generator)			U.S. EPA ID Number			
	Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator)							
Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H141		2. H141		3. H411		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name KENNETH W. WILSON			Signature <i>[Signature]</i>			Month Day Year 10/3/04/10	

26

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Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 0 8 7 0 9 2 3 9 1	2. Page 1 of 1	3. Emergency Response Phone (609) 965-4616	4. Manifest Tracking Number 001863202 FLE			
5. Generator's Name and Mailing Address Ocean Yacht Route 563 (609) 965-4616 Millepost 23 Weekstown, NJ 08215-				Generator's Site Address (if different than mailing address) Ocean Yacht Route 563 Weekstown, NJ 08215-				
6. Transporter 1 Company Name Armstrong Environmental Serv				U.S. EPA ID Number PAD014286009				
7. Transporter 2 Company Name Hukill Chemical				U.S. EPA ID Number OH0001926740				
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440)232-9400				U.S. EPA ID Number OH0001926740				
Facility's Phone:								
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	<input type="checkbox"/>	1. Used Oil, D.O.T. Non-regulated per 40 & 49 CFR		— DM		—	g	
	<input type="checkbox"/>	2. Oil and absorbents, nonregulated per 40 & 49 CFR		4 DM		220	G	
	<input checked="" type="checkbox"/>	3. UN1993, Waste Flammable Liquids, n.o.s., (Acetone), 3, PG II,		8 DM		410	G	D001 F003
	<input type="checkbox"/>	4.						
14. Special Handling Instructions and Additional Information 1 P#18433 2 P#19071 3 128 P#17749 HEC 1DS7946								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Offor's Printed/Typed Name X Lewis Gorman				Signature <i>[Signature]</i>		Month Day Year 5/20/09		
TRANSPORTER INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
	17. Transporter Acknowledgment of Receipt of Materials							
	Transporter 1 Printed/Typed Name Loren Cook				Signature <i>[Signature]</i>		Month Day Year 5/20/09	
DESIGNATED FACILITY	Transporter 2 Printed/Typed Name JAMES O PEARSON				Signature <i>[Signature]</i>		Month Day Year 5/26/09	
	18. Discrepancy							
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
18b. Alternate Facility (or Generator) U.S. EPA ID Number								
Facility's Phone:								
18c. Signature of Alternate Facility (or Generator) Month Day Year								
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1. H141		2. H020		3.		4.		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a								
Printed/Typed Name JOFF MCGLYNN				Signature <i>[Signature]</i>		Month Day Year 10/22/05		

2-b

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 0 8 7 0 9 2 3 9 1	2. Page 1 of 1	3. Emergency Response Phone (609) 965-4616	4. Manifest Tracking Number 001863121 FLE	
5. Generator's Name and Mailing Address Ocean Yacht Route 563 Millepost 23 Weekstown, NJ 08215-			Generator's Site Address (if different than mailing address) Ocean Yacht Route 563 Weekstown, NJ 08215-			
6. Transporter 1 Company Name Edward Armstrong and Sons, I			U.S. EPA ID Number PAD014286009			
7. Transporter 2 Company Name Hukill Chemical Corporation			U.S. EPA ID Number OHD001926740			
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440)232-9400			U.S. EPA ID Number OHD001926740			
Facility's Phone:						
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
<input checked="" type="checkbox"/>	UN1993, Waste Flammable Liquids, n.o.s., (Acetone), 3, PG II,	6 DM		330	G	D001 F003
<input type="checkbox"/>	Used Oil, D.O.T. Non-regulated per 40 & 49 CFR	1 DM		55	g	
<input type="checkbox"/>						
<input type="checkbox"/>						
14. Special Handling Instructions and Additional Information 1 120 P#17749 HCC ID85896 2 P#18433						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offoror's Printed/Typed Name Victor Gonzales		Signature <i>Victor Gonzales</i>		Month Day Year 12 17 08		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Loren Toth Signature <i>Loren Toth</i> Month Day Year 12 17 08 Transporter 2 Printed/Typed Name DANIEL SHAFER Signature <i>Daniel Shafer</i> Month Day Year 12 17 08						
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: U.S. EPA ID Number: 18b. Alternate Facility (or Generator) Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month Day Year						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H061 H020 2. H061 3. 4.						
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name James E. Skye Signature <i>James E. Skye</i> Month Day Year 12 23 08						

2b

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 1 8 4 8 0 7 3 1 1	2. Page 1 of 1	3. Emergency Response Phone (610) 965-7214	4. Manifest Tracking Number 001863122 FLE
5. Generator's Name and Mailing Address Ocean Yacht II Deur St. + St. Louis Ave (610) 965-7214 Egg Harbor City, NJ 08215-		Generator's Site Address (if different than mailing address) Ocean Yacht II Deur St. + St. Louis Ave Egg Harbor City, NJ 08215-			
6. Transporter 1 Company Name Edward Armstrong and Sons, I		U.S. EPA ID Number PAD014286009			
7. Transporter 2 Company Name Hukill Chemical Corporation		U.S. EPA ID Number OHD001926740			
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440)232-9400		U.S. EPA ID Number OHD001926740			
Facility's Phone:					
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.
<input checked="" type="checkbox"/>	UN1993, Waste Flammable Liquids, n.o.s., (Acetone), 3, PG II.	1 DM		55	G
13. Waste Codes D001 F003					
14. Special Handling Instructions and Additional Information 1 128 P#17751 HCC ID85897					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Officer's Printed/Typed Name X Edwin Vega					
Signature Edwin Vega					
Month Day Year 12/17/08					
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:					
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Ivan Zook Signature Ivan Zook Month Day Year 12/17/08 Transporter 2 Printed/Typed Name DAMEL SHAFER Signature DAMEL SHAFER Month Day Year 12/22/08					
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection 18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number: Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month Day Year					
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H020 2. 3. 4.					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name James E. Skiff Signature James E. Skiff Month Day Year 12/23/08					

2-b

9455

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 0 8 7 0 9 2 3 9	2. Page 1 of 1	3. Emergency Response Phone (609) 965-4616	4. Manifest Tracking Number 001855541 FLE		
5. Generator's Name and Mailing Address Ocean Yacht Route 563 Millepost 23 Weekstown, NJ 08215-				Generator's Site Address (if different than mailing address) Ocean Yacht Route 563 Weekstown, NJ 08215-			
6. Transporter 1 Company Name Edward Armstrong and Sons, I				U.S. EPA ID Number PAD014286009			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440)232-9400				U.S. EPA ID Number OHD001926740			
Facility's Phone:							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
<input checked="" type="checkbox"/>	1. Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II	5	DN	275	G	D001 F003	
<input type="checkbox"/>	2. Used Oil, D.O.I. Non-regulated per 40 & 49 CFR	3	DN	165	g		
	3.						
	4.						
14. Special Handling Instructions and Additional Information 1 12B P#17749 2 P#18433							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offor's Printed/Typed Name *Victor GONZALEZ		Signature <i>Victor Gonzalez</i>		Month Day Year 9 24 08			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name Loran Zook		Signature <i>Loran Zook</i>		Month Day Year 9 24 08			
Transporter 2 Printed/Typed Name DANIEL SHAFER		Signature <i>Dan Shaffer</i>		Month Day Year 09 29 08			
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number: _____							
Facility's Phone: _____							
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H076 H020 H061 2. 3. 4.							
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name James E Skopen		Signature <i>James E Skopen</i>		Month Day Year 8 30 08			

1. Generator ID Number

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator ID Number

N J D 1 8 4 8 0 7 3 1 1

2. Page 1 of 1

3. Emergency Response Phone

(610) 965-7214

4. Manifest Tracking Number

001855540 FLE

Form Approved, OMB No. 2050-0039

5. Generator's Name and Mailing Address

Ocean Yacht II
Deur St. + St. Louis Ave
Egg Harbor City, NJ 08215-

Generator's Site Address (if different than mailing address)

Ocean Yacht II
Deur St. + St. Louis Ave
Egg Harbor City, NJ 08215-

Generator's Phone:

6. Transporter 1 Company Name

Edward Armstrong and Sons, I

U.S. EPA ID Number

PAD014286009

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Hukill Chemical Corporation
7013 Krick Road
Bedford, Ohio 44146-
(440)232-9400

U.S. EPA ID Number

OHD001926740

Facility's Phone:

8a.
HM

8b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))

10. Containers

No.

Type

11. Total
Quantity

12. Unit
Wt/Vol.

13. Waste Codes

1. Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II

5

DM

275

G

D001

F003

14. Special Handling Instructions and Additional Information

1 128 P#17751

HCC ID84835

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Officer's Printed/Typed Name

K Edwin Vega

Signature

Edi Vega

Month Day Year

9 24 08

16. International Shipments

☐ Import to U.S.

☐ Export from U.S.

Port of entry/exit:

Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Loren Cook

Signature

L Cook

Month Day Year

9 24 08

Transporter 2 Printed/Typed Name

DANIEL SHAFER

Signature

Dan Shaffer

Month Day Year

09 29 08

18. Discrepancy

18a. Discrepancy Indication Space

☐ Quantity

☐ Type

☐ Residue

☐ Partial Rejection

☐ Full Rejection

18b. Alternate Facility (or Generator)

Manifest Reference Number:

U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)

Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H020

2.

3.

4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a

Printed/Typed Name

James E Skypen

Signature

James E Skypen

Month Day Year

19 30 08

2-6

9454

Please print or type. (Form designed for use on elite (12-pitch) typewriter):

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 0 8 7 0 9 2 3 9 1	2. Page 1 of 1	3. Emergency Response Phone (609) 965-4616	4. Manifest Tracking Number 001854690 FLE				
5. Generator's Name and Mailing Address Ocean Yacht Route 563 Millepost 23 Weekstown, NJ 08215- (609) 965-4616				Generator's Site Address (if different than mailing address) Ocean Yacht Route 563 Weekstown, NJ 08215-					
6. Transporter 1 Company Name Edward Armstrong and Sons, I				U.S. EPA ID Number PAD014286009					
7. Transporter 2 Company Name Hukill Chemical Corporation				U.S. EPA ID Number OHD001926740					
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440) 232-9400				U.S. EPA ID Number OHD001926740					
Facility's Phone:									
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
<input checked="" type="checkbox"/>	1. Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II			15		750	G	D001	F003
<input type="checkbox"/>	2. Used Oil, D.O.T. Non-regulated per 40 & 49 CFR			2		100	B		
	3.								
	4.								
14. Special Handling Instructions and Additional Information 1 128 P#17749 2 P#18433 HCC IDB3477									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's/Offor's Printed/Typed Name Stanley Thibault				Signature <i>Stanley Thibault</i>		Month Day Year 6 26 08			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____									
17. Transporter Acknowledgment of Receipt of Materials									
Transporter 1 Printed/Typed Name ROY SHEETZER				Signature <i>Roy Sheetzer</i>		Month Day Year 6 26 08			
Transporter 2 Printed/Typed Name JAMES D PEARSON				Signature <i>James D Pearson</i>		Month Day Year 6 30 08			
18. Discrepancy									
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input checked="" type="checkbox"/> Full Rejection									
18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number: _____									
Facility's Phone: _____									
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____									
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
1. A020		2. H061		3. _____		4. _____			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a									
Printed/Typed Name Jose A Nieves				Signature <i>Jose A Nieves</i>		Month Day Year 07 01 08			

2-5

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 0 8 7 0 9 2 3 9 1	2. Page 1 of 1	3. Emergency Response Phone (609) 965-4616	4. Manifest Tracking Number 001854314 FLE			
5. Generator's Name and Mailing Address Ocean Yacht Route 563 Hillepost 23 Weekstown, NJ 08215- (609) 965-4616			Generator's Site Address (if different than mailing address) Ocean Yacht Route 563 Weekstown, NJ 08215-					
6. Transporter 1 Company Name Edward Armstrong and Sons, I			U.S. EPA ID Number PAD014286009					
7. Transporter 2 Company Name Hukill Chemical Corporation			U.S. EPA ID Number OND001926740					
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440) 232-9400			U.S. EPA ID Number OND001926740					
Facility's Phone:								
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
			No.	Type				
	<input checked="" type="checkbox"/>	1. Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II	05	DM	275	G	D001	F003
	<input type="checkbox"/>	2. Used Oil, D.O.T. Non-regulated per 40 & 49 CFR		DM				
	<input type="checkbox"/>	3.						
<input type="checkbox"/>	4.							
14. Special Handling Instructions and Additional Information 1 128 P417749 2 P419433 HCC 1D02075								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Offeror's Printed/Typed Name VICTOR GONZALEZ			Signature <i>Victor Gonzalez</i>		Month Day Year 03 19 08			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.			Port of entry/exit: Date leaving U.S.:					
17. Transporter Acknowledgment of Receipt of Materials								
Transporter 1 Printed/Typed Name Edward T Roy			Signature <i>Edward T Roy</i>		Month Day Year 03 19 08			
Transporter 2 Printed/Typed Name			Signature		Month Day Year			
18. Discrepancy:								
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
Manifest Reference Number:								
18b. Alternate Facility (or Generator)								
U.S. EPA ID Number								
Facility's Phone:								
18c. Signature of Alternate Facility (or Generator)								
Month Day Year								
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1.		2.		3.		4.		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a								
Printed/Typed Name			Signature		Month Day Year			

print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	N J D 1 8 4 8 0 7 3 1 1	1	(610) 965-7214	001854315 FLE

5. Generator's Name and Mailing Address	Generator's Site Address (if different than mailing address)
Ocean Yacht II Deur St. + St. Louis Ave (610) 965-7214 Egg Harbor City, NJ 08215-	Ocean Yacht II Deur St. + St. Louis Ave Egg Harbor City, NJ 08215-

6. Transporter 1 Company Name	U.S. EPA ID Number
Edward Armstrong and Sons, I	PAD014286009

7. Transporter 2 Company Name	U.S. EPA ID Number
Hukill Chemical Corporation	OHD001926740

8. Designated Facility Name and Site Address	U.S. EPA ID Number
Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440)232-9400	OHD001926740

Facility's Phone:	

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt/Vol	13. Waste Codes	
		No.	Type				
<input checked="" type="checkbox"/>	Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II	04	DM	220	G	D001	F003

14. Special Handling Instructions and Additional Information	
1 128 P#17751	HCC ID82100

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Officer's Printed/Typed Name	Signature	Month	Day	Year
Edwin Vega	Edwin D. Vega	03	17	08

16. International Shipments	<input type="checkbox"/> Import to U.S.	<input type="checkbox"/> Export from U.S.	Port of entry/exit:
Transporter signature (for exports only):			Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials	
Transporter 1 Printed/Typed Name	Signature
Edward T. Roger	Edward T. Roger

Transporter 2 Printed/Typed Name	Signature	Month	Day	Year
STEVE JONES	Steve Jones	03	24	08

18. Discrepancy	
18a. Discrepancy Indication Space	<input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection

18b. Alternate Facility (or Generator)	Manifest Reference Number:	U.S. EPA ID Number:

Facility's Phone:	

18c. Signature of Alternate Facility (or Generator)	Month	Day	Year

18. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)	
1. H020 2. 3. 4.	

20. Designated Facility Owner or Operator Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a	
Printed/Typed Name	Signature
Paul B. Margolis	Paul B. Margolis

Month	Day	Year
13	24	08

2-6

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved, OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 0 8 7 0 9 2 5 9 1	2. Page 1 of 1	3. Emergency Response Phone (609) 965-4616	4. Manifest Tracking Number 000290885 FLE			
5. Generator's Name and Mailing Address Ocean Yacht Route 563 (609) 965-4616 Millepost 23 Generator's Phone: Weekstown, NJ 08215-			Generator's Site Address (if different than mailing address) Ocean Yacht Route 563 Weekstown, NJ 08215-					
6. Transporter 1 Company Name Armstrong Environmental Serv			U.S. EPA ID Number PAD014286009					
7. Transporter 2 Company Name Hukill Chemical Corporation			U.S. EPA ID Number OHDD001926740					
8. Designated Facility Name and Site Address HUKILL Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- Facility's Phone: (440)232-9400			U.S. EPA ID Number OHDD001926740					
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes	
	<input checked="" type="checkbox"/>	1. Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II	06 DM		330	G	D001	F003
	<input type="checkbox"/>	2. Used Oil, D.O.T. Non-regulated per 40 & 49 CFR	06 DM		330	G		
		3.						
		4.						
14. Special Handling Instructions and Additional Information 1 128 P#17749 2 P#18433 HCC ID80634								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true. Generator's/Offeror's Printed/Typed Name: STANLEY TRIBALULT Signature: <i>[Signature]</i> Month: 12 Day: 13 Year: 07								
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:							
	17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name: Edward T. Rem Signature: <i>[Signature]</i> Month: 12 Day: 13 Year: 07 Transporter 2 Printed/Typed Name: James D. Benson Signature: <i>[Signature]</i> Month: 12 Day: 17 Year: 07							
DESIGNATED FACILITY	18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: 18b. Alternate Facility (or Generator) U.S. EPA ID Number: Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month: Day: Year:							
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H020/H061 2. H141 3. 4.							
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a Printed/Typed Name: JOHN RYPIAL Signature: <i>[Signature]</i> Month: 12 Day: 22 Year: 07							
	DESIGNATED FACILITY TO GENERATOR							

2-6

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 0 8 7 0 9 2 3 9 1	2. Page 1 of 1	3. Emergency Response Phone (609) 965-4616	4. Manifest Tracking Number 000286527 FLE			
5. Generator's Name and Mailing Address Ocean Yacht Route 563 Hillepost 23 Weekstown, NJ 08215-		Generator's Site Address (if different than mailing address) Ocean Yacht Route 563 Weekstown, NJ 08215-						
6. Generator's Phone (609) 965-4616		U.S. EPA ID Number PAD014286009						
7. Transporter 1 Company Name Armstrong Environmental Serv		U.S. EPA ID Number OH0001926740						
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146-- (440)232-9400		U.S. EPA ID Number OH0001926740						
Facility's Phone:								
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
	<input checked="" type="checkbox"/>	1. Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II	06	DM	300	G	D001	F003
	<input type="checkbox"/>	2. Used Oil, D.O.T. Non-regulated per 40 & 49 CFR	01	DM	050	g		
	<input type="checkbox"/>	3.						
	<input type="checkbox"/>	4.						
14. Special Handling Instructions and Additional Information 1 128 P#17749 2 P#18433 HCC 1079424								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Officer's Printed/Typed Name Victor Gonzalez		Signature <i>Victor Gonzalez</i>		Month Day Year 9 19 07				
TRANSPORTER INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:					
	Transporter signature (for exports only):							
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials		Signature		Month Day Year			
	Transporter 1 Printed/Typed Name Edmund T. Royer		<i>Edmund T. Royer</i>		09 19 07			
DESIGNATED FACILITY	Transporter 2 Printed/Typed Name STEVE JONES		<i>Steve Jones</i>		09 21 07			
	18. Discrepancy							
DESIGNATED FACILITY	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
	Manifest Reference Number:							
	18b. Alternate Facility (or Generator) U.S. EPA ID Number							
DESIGNATED FACILITY	Facility's Phone:							
	18c. Signature of Alternate Facility (or Generator) Month Day Year							
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
DESIGNATED FACILITY	1. A070 2. A061 3. H061 4.							
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
	Printed/Typed Name Jose A. Nieve		Signature <i>Jose A. Nieve</i>		Month Day Year 09 22 07			

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number NJ D 1 8 4 8 0 7 3 1 1	2. Page 1 of 1	3. Emergency Response Phone (610) 965-7214	4. Manifest Tracking Number 000286528 FLE
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5. Generator's Name and Mailing Address Ocean Yacht II Deur St. + St. Louis Ave Egg Harbor City, NJ 08215- Generator's Phone: (610) 965-7214	Generator's Site Address (if different than mailing address) Ocean Yacht II Deur St. + St. Louis Ave Egg Harbor City, NJ 08215-
--	--

6. Transporter 1 Company Name Armstrong Environmental Serv	U.S. EPA ID Number PAD014286009
---	------------------------------------

7. Transporter 2 Company Name Z Hukill Chemical Corporation	U.S. EPA ID Number OHD001926740
---	---

8. Designated Facility Name and Site Address HUKILL Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- Facility's Phone: (440) 232-9400	U.S. EPA ID Number OHD001926740
--	------------------------------------

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit WL/Vol	13. Waste Codes		
		No.	Type					
1	Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II	02	DM	100	G	D001	F003	
2								
3								
4								

14. Special Handling Instructions and Additional Information 1 126 P#1775	POB 1279425
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15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Officer's Printed/Typed Name Alfredo Burgos	Signature <i>Alfredo Burgos</i>	Month Day Year 09/19/07
---	------------------------------------	-----------------------------------

16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.	Port of entry/exit Date leaving U.S.:
---	--

17. Transporter Acknowledgment of Receipt of Materials
--

Transporter 1 Printed/Typed Name Edward T Royer	Signature <i>Edward T Royer</i>	Month Day Year 09/19/07
---	------------------------------------	-----------------------------------

Transporter 2 Printed/Typed Name STEVE JONES	Signature <i>Steve Jones</i>	Month Day Year 09/21/07
--	---------------------------------	-----------------------------------

18. Discrepancy

18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection
--

18b. Alternate Facility (or Generator)	Manifest Reference Number	U.S. EPA ID Number
--	---------------------------	--------------------

Facility's Phone:	18c. Signature of Alternate Facility (or Generator)	Month Day Year
-------------------	---	----------------

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H020 + H061	2.	3.	4.
----------------	----	----	----

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
--

Printed/Typed Name Pete A Niles	Signature <i>Pete A Niles</i>	Month Day Year 09/23/07
---	----------------------------------	-----------------------------------

78195

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NJ D 1 8 4 8 0 7 3 1 1	2. Page 1 of 1	3. Emergency Response Phone (610) 965-7214	4. Manifest Tracking Number 000287555 FILE		
5. Generator's Name and Mailing Address Ocean Yacht II Deur St. + St. Louis Ave Egg Harbor City, NJ 08215- (610) 965-7214		6. Generator's Site Address (if different from mailing address) Ocean Yacht II Deur St. + St. Louis Ave Egg Harbor City, NJ 08215-					
6. Transporter 1 Company Name Edward Armstrong and Sons, I		U.S. EPA ID Number PAD014286009					
7. Transporter 2 Company Name Hukill Chemical Corporation		U.S. EPA ID Number OHD001926740					
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440) 232-9400		U.S. EPA ID Number OHD001926740					
Facility's Phone:							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes
			No.	Type			
	<input checked="" type="checkbox"/>	Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II	04	DM	200	G	D001 F003
	<input type="checkbox"/>	Unused Polyurethane elastomer, nonregulated per 40 & 49 CFR	01	DM	30	G	
14. Special Handling Instructions and Additional Information 1 128 P#17751 2 P#18435 HCC ID78195							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Officer's Printed/Typed Name Alfredo Burgos							
Signature Alfredo Burgos							
Month Day Year 06 27 07							
INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
	Transporter signature (for export only):						
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name Edward T Royer						
DESIGNATED FACILITY	Signature Edward T Royer						
	Month Day Year 06 27 07						
	Transporter 2 Printed/Typed Name STEVE JONES						
	Signature Steve Jones						
	Month Day Year 06 28 07						
	18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number:							
18b. Alternate Facility (or Generator) U.S. EPA ID Number							
Facility's Phone:							
18c. Signature of Alternate Facility (or Generator)							
Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H061 / H141		2. H061		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name JOHN RYIAK							
Signature John Ryiak							
Month Day Year 06 28 07							

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 0 8 7 0 9 2 3 9 1		2. Page 1 of 1	3. Emergency Response Phone (609) 965-4616		4. Manifest Tracking Number 000287554 FLE		
5. Generator's Name and Mailing Address Ocean Yacht Route 563 Hillepost 23 Weekstown, NJ 08215-				Generator's Site Address (if different than mailing address) Ocean Yacht Route 563 Weekstown, NJ 08215-					
Generator's Phone: (609) 965-4616									
6. Transporter 1 Company Name Edward Armstrong and Sons, I				U.S. EPA ID Number PADO14286009					
7. Transporter 2 Company Name Hukill Chemical Corporation				U.S. EPA ID Number OHD001926740					
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440)232-9400				U.S. EPA ID Number OHD001926740					
Facility's Phone:									
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers No. Type		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes
	<input checked="" type="checkbox"/>	Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG 11			07 DM		350	G	D001 F003
	<input type="checkbox"/>	Used Oil, D.O.T. Non-regulated per 40 & 49 CFR			01 DM		050	g	
	<input type="checkbox"/>								
	<input type="checkbox"/>								
14. Special Handling Instructions and Additional Information 1 128 P#17749 2 P#18433									
HCC ID78194									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's/Officer's Printed/Typed Name STEVE THORNTON				Signature <i>[Signature]</i>		Month Day Year 06 27 07			
TRANSPORTER INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:								
	Transporter signature (for exports only):								
	17. Transporter Acknowledgment of Receipt of Materials								
	Transporter 1 Printed/Typed Name Edward T Rogers				Signature <i>[Signature]</i>		Month Day Year 06 27 07		
	Transporter 2 Printed/Typed Name STEVE JONES				Signature <i>[Signature]</i>		Month Day Year 06 28 07		
FACILITY	18. Discrepancy								
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
	Manifest Reference Number:								
	18b. Alternate Facility (or Generator) U.S. EPA ID Number								
	Facility's Phone:								
18c. Signature of Alternate Facility (or Generator) Month Day Year									
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
1. H061		2. H061		3.		4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a									
Printed/Typed Name JOHN RYPIAK				Signature <i>[Signature]</i>		Month Day Year 06 30 07			

76974

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NJ D 1 8 4 8 0 7 3 1 1	2. Page 1 of 1	3. Emergency Response Phone (610) 965-7214	4. Manifest Tracking Number 000288004 FLE
5. Generator's Name and Mailing Address Ocean Yacht II Deur St. + St. Louis Ave Egg Harbor City, NJ 08215- (610) 965-7214		Generator's Site Address (if different than mailing address) Ocean Yacht II Deur St. + St. Louis Ave Egg Harbor City, NJ 08215-			
6. Transporter 1 Company Name Edward Armstrong and Sons, I		U.S. EPA ID Number PAD014286009			
7. Transporter 2 Company Name Hukill Chemical Corp.		U.S. EPA ID Number OHD001926740			
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440)232-9400		U.S. EPA ID Number OHD001926740			
Facility's Phone:					
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.
<input checked="" type="checkbox"/>	Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II	04 DM		0200	G
13. Waste Codes	D001 F003				
14. Special Handling Instructions and Additional Information 1 120 191751	HCC ID76976				
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Officer's Printed/Typed Name Alfredo Burgos		Signature Alfredo Burgos		Month Day Year 04/04/07	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Part of entry/exit: Date leaving U.S.:			
17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Edward T Royer		Signature Edward T Royer		Month Day Year 04/04/07	
Transporter 2 Printed/Typed Name JAMES D Pearson		Signature James D Pearson		Month Day Year 04/04/07	
18. Discrepancy					
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
18b. Alternate Facility (or Generator)		Manifest Reference Number: U.S. EPA ID Number			
Facility's Phone:					
18c. Signature of Alternate Facility (or Generator)		Month Day Year			
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
1. H090		2.		3.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a					
Printed/Typed Name Jose A. Nieves		Signature Jose A. Nieves		Month Day Year 04/04/07	

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 0 8 7 0 9 2 3 9 1	2. Page 1 of 1	3. Emergency Response Phone (609) 965-4616	4. Manifest Tracking Number 000288003 FLE
5. Generator's Name and Mailing Address Ocean Yacht Route 563 Millepost, 23 Weekstown, NJ 08215-		Generator's Site Address (if different than mailing address) Ocean Yacht Route 563 Weekstown, NJ 08215-			
6. Transporter 1 Company Name Edward Armstrong and Sons, I		U.S. EPA ID Number PAD014286009			
7. Transporter 2 Company Name Hukill Chemical Corp.		U.S. EPA ID Number OHD001926740			
8. Designated Facility Name and Site Address Hukill Chemical Corporation 7013 Krick Road Bedford, Ohio 44146- (440)232-9400		U.S. EPA ID Number OHD001926740			
Facility's Phone:					
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity
			No.	Type	12. Unit WL/Vol
	<input checked="" type="checkbox"/>	Waste Flammable Liquid, n.o.s. (Contains Acetone,), 3, UN1993, PG II	07	DM	350
13. Waste Codes					
					D001 F003
14. Special Handling Instructions and Additional Information 1 128 PA17749 HCC ID76977					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Offor's Printed/Typed Name Victor Gonzalez		Signature <i>Victor Gonzalez</i>		Month Day Year 14 4 07	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____					
17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Edward T Royer		Signature <i>Edward T Royer</i>		Month Day Year 04 04 07	
Transporter 2 Printed/Typed Name JAMES D. Pearson		Signature <i>James D. Pearson</i>		Month Day Year 04 09 07	
18. Discrepancy					
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number: _____					
18b. Alternate Facility (or Generator) U.S. EPA ID Number _____					
Facility's Phone: _____					
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____					
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
1. H020		2. _____		3. _____	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a					
Printed/Typed Name JOSE A. Neri		Signature <i>JOSE A. Neri</i>		Month Day Year 04 11 07	

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NTD 087092391	2. Page 1 of 1	3. Emergency Response Phone 610 384 8690	4. Manifest Tracking Number 000492319 FLE	
5. Generator's Name and Mailing Address OCEAN YACHT RTE 563 MILE POST 23 WEEKSTOWN, NJ 08215		Generator's Site Address (if different than mailing address) SAME				
6. Generator's Phone: 609 965 4616						
6. Transporter 1 Company Name TRIL De. Inc.		U.S. EPA ID Number PAR 000043752				
7. Transporter 2 Company Name MAUMER EXPRESS, INC.		U.S. EPA ID Number ND 86607380				
8. Designated Facility Name and Site Address HUKILL Chemical Corporation 705 KILCK Road, Bedford, OH 44146		U.S. EPA ID Number OH 001926740				
Facility's Phone: (440) 232-9400						
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit WL/Vol.
			No.	Type		
		1. WASTE FLAMMABLE LIQUID, NOS	XX7	DM	385	G
		X 3, UN1993, PG II (ACETONE ERG 128)	XX3			
14. Special Handling Instructions and Additional Information L/I - 17749						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offor's Printed/Typed Name Victor GONZALEZ		Signature <i>Victor Gonzalez</i>		Month Day Year 12 18 06		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name Mark S. Kowalsky		Signature <i>Mark S. Kowalsky</i>		Month Day Year 12 18 06		
Transporter 2 Printed/Typed Name CHUCK SPENCER		Signature <i>Chuck Spencer</i>		Month Day Year 12 21 06		
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number: _____						
18b. Alternate Facility (or Generator) U.S. EPA ID Number _____						
Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator) Month Day Year _____						
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1. H061		2. _____		3. _____		4. _____
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
Printed/Typed Name Paul B Muscolis		Signature <i>Paul B Muscolis</i>		Month Day Year 12 22 06		

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number N J D 0 8 7 0 9 2 3 9 1	2. Page 1 of 1	3. Emergency Response Phone 336-855-7925	4. Manifest Tracking Number 001213490 JJK
5. Generator's Name and Mailing Address Ocean Yacht PO Box 312 Egg Harbor, NJ 08215			Generator's Site Address (if different than mailing address) Rte. 563 Milepost 23 Egg Harbor City, NJ 08215		
Generator's Phone: 610-384-8880					
6. Transporter 1 Company Name ECOFLO, Inc.				U.S. EPA ID Number N C D 9 8 0 8 4 2 1 3 2	
7. Transporter 2 Company Name SJ TAPPAUER, Inc.				U.S. EPA ID Number N J D 0 7 1 6 2 4 5 1 6	
8. Designated Facility Name and Site Address ECOFLO, Inc. 2750 Patterson St. Greensboro, NC 27407				U.S. EPA ID Number N C D 9 8 0 8 4 2 1 3 2	
Facility's Phone: 336-855-7925					

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes		
		No.	Type			D001	F003	
X	1. RQ, Waste Flammable liquids, nos (acetone, resin) 3, UN1993, II (D001) -118AAE-01-118AAD-1	XX8	DM	4000	P			
	2. -							
	3. -							
	4. -							

14. Special Handling Instructions and Additional Information
Job # 122550 1. L/A Acetone/Resin (8 x 55dm) ERG#128 - HV-F0106-M308
122550

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offoror's Printed/Typed Name: **Victor Gonzalez** Signature: **Victor Gonzalez** Month: **10** Day: **4** Year: **06**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: **James Fulk** Signature: **[Signature]** Month: **10** Day: **6** Year: **06**

Transporter 2 Printed/Typed Name: **Mitchell Hurdley** Signature: **[Signature]** Month: **10** Day: **6** Year: **06**

Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number: _____ U.S. EPA ID Number: _____

Alternate Facility (or Generator) Name: _____ U.S. EPA ID Number: _____

Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

2. _____	3. _____	4. _____	
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Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a

9. Berger Signature: **[Signature]** Month: **10** Day: **9** Year: **06**

15) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR